2015
URBAN WATER
MANAGEMENT PLAN

WATER DIVISION
164 W. MAGNOLIA BOULEVARD
JUNE 2016

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EXECUTIVE SUMMARY

The California Urban Water Management Planning Act (Act), Water Code Sections 10610 through 10657, requires many urban water suppliers to assess the reliability of their water sources over a 20-year planning horizon every five years through the preparation of an Urban Water Management Plan (UWMP). Preparation of an UWMP is required for suppliers that either provide over 3,000 acre-feet (AF) of water annually or serve 3,000 or more connections. The City of Burbank has over 26,000 water services and supplies between 15,000 AF and 19,000 AF of potable water annually.

Since its original enactment, there have been several amendments/additions to the Act. The main goal of the UWMP is:

- Forecasting future water demands and water supplies under average and dry year conditions
- Identifying future water supply projects such as recycled water
- Providing a summary of water conservation best management practices (BMPs)
- Providing a single and multi-dry year management strategy

BWP completed UWMPs for the years of 1985, 1990, 1995, 2000, 2005, and 2010 and submitted them the California Department of Water Resources (DWR). DWR reviews each water supplier's UWMP for compliance with its minimum requirements and for 2015, UWMPs must include:

- Assessment of past and future water supplies and demands
- Evaluation of the future reliability of Burbank's water supplies
- Water conservation and water management activities
- Discussion of water recycling activities
- Contingency planning for water shortages
- Evaluation of distribution system water losses

Highlights of changes in requirements since the 2010 UWMP include:

- Demand Management Measures: Requires retail water suppliers to address the nature and extent of each water demand management measure implemented over the past 5 years and describe the water demand management measures that the supplier plans to implement to achieve its water use targets
- Submittal Date: Requires each urban water supplier to submit its 2015 UWMP to DWR by July 1, 2016
- Electronic Submittal: Requires the UWMP and any amendments to be submitted electronically to DWR
- Water Loss: Requires a plan to quantify and report on distribution system water loss
- Estimating Future Water Savings: Provides for water use projections to display and account for the water savings estimated to result from adopted codes, standards, ordinances, or

transportation and land use plans, when that information is available and applicable to an urban water supplier

- Voluntary Reporting of Energy Intensity: Allows an urban water supplier to include certain energy-related information, including, but not limited to, an estimate of the amount of energy used to extract or divert water supplies
- Defining Water Features: Requires urban water suppliers to analyze and identify water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas

Burbank Water and Power (BWP) Staff prepared this 2015 UWMP which was subsequently approved by the Burbank City Council on June 14, 2016. Public involvement and comment was solicited though BWP's website.

BWP's potable water supply is composed of surface water resources provided by the Metropolitan Water District (MWD) and groundwater resources. There are factors which could affect the reliability of the groundwater supply which BWP cannot control, such as new water quality standards for emerging contaminants which may be difficult to meet. This uncertainty is bridged by BWP's status as a member agency of the MWD. MWD stated, through its 2015 UWMP, that it has adequate supplies for its service area through 2040.

In November 2009, Senate Bill 7 (SBx7-7) was passed into law, mandating a 20 percent per capita reduction in water use by December 31, 2020, along with an interim goal of 10 percent reduction by the end of 2015. The 2010 Plan included the calculation of a 2020 water use target of 156 gallons per capita per day (gpcd) and an interim (2015) target of 175 gpcd. In April 2015 Governor Brown issued an Executive Order requiring 25% statewide water use reductions as compared to potable water use in 2013. In May 2015, the State Water Resources Control Board (SWRCB) adopted emergency regulations requiring an immediate 25% reduction in overall potable urban water use. The regulation used a sliding scale for setting conservation standards. Communities that had "low" gpcd use or had already reduced their gpcd through past conservation were given lower reduction mandates than those that had not made such gains since the last major drought. As a result Burbank's required reduction was established at 24%.

Burbank's City Council implemented Stage III of its Sustainable Water Use Ordinance (SWUO) on June 1, 2015. By the end of 2015, water use had decreased to 127 gpcd, much lower than the 2015 interim SBx7-7 requirement of 175 gpcd. Implementing Stage III also resulted in the City meeting the SWRCB's required monthly reduction of 24%. BWP expects to sustain this level of water use as long as the Governor's order stays in place by remaining in Stage III of the SWUO. In addition, permanent water conservation measures have been implemented like Stage I SWUO requirements, continued water system maintenance (e.g. replacing vulnerable water mains), and maximizing recycled water use.

SECTION 1: INTRODUCTION

1.1 Purpose

This Urban Water Management Plan (UWMP) has been prepared in accordance with the California Urban Water Management Planning Act (Act), Water Code Sections 10610 through 10657. The Act requires urban water suppliers that provide over 3,000 AF of water annually or serve 3,000 or more connections to assess, every five years, the reliability of its water sources over a 20-year planning horizon. The UWMP must include:

- Assessment of past and future water supplies and demands
- Evaluation of the future reliability of Burbank's water supplies
- Water conservation and water management activities
- Discussion of water recycling activities
- Contingency planning for water shortages
- Evaluation of distribution system water losses

The complete text of the Act is available on the internet at www.water.ca.gov/urbanwatermanagement. DWR's guidance contains a checklist for the requirements of the Act. The completed 2015 UWMP checklist for the City of Burbank is contained in Appendix A.

Burbank Water and Power (BWP) provides water service to the residents of the city of Burbank (the City). BWP is a departmental utility of the City. Burbank's City Council (the Council), elected by Burbank's residents establishes the policies under which the utility operates. As such, the Council has established the policy that the City will continue and expand its efforts to encourage the efficient use of water within its service area.

1.2 Previous Efforts

The City prepared UWMPs for the years 1985, 1990, 1995, 2000, 2005, and 2010 which fulfilled Water Code 10620(b) requirements. In 1992, the City prepared an Urban Water Shortage Contingency Plan, which was also required by the Legislature, which was subsequently integrated into the 1995 UWMP. In 1997, the City prepared an Integrated Water Resources Plan containing some of the same information regarding expected water supplies and demands. The basic information from the Integrated Water Resources Plan was incorporated into subsequent UWMPs, starting in 2000.

1.3 UWMP Preparation

BWP coordinated efforts with several agencies in the preparation of the 2015 UWMP which are shown in Table 1-1. BWP worked with Metropolitan Water District of Southern California (MWD), Upper Los Angeles River Area (ULARA) Watermaster, County of Los Angeles, City of Glendale, Burbank Public Works Department, and the General Public in developing the 2015 UWMP. BWP also notified the public, via a post on its website on March 1st, 2016 that the UWMP was in review. This posting also encouraged

the involvement of the public with diverse social, cultural, and economic elements. Another website posting on April 28th, 2016 made the 2015 UWMP Draft version available for the public review and also notified the public of the time and place of the City Council hearing to adopt the 2015 UWMP.

Table 1-1: Coordination with appropriate agencies

Coordinating Agencies	Participated in developing the plan	Attended public meetings*	Contacted for assistance	Sent a copy of the draft Plan	Sent a notice of intent to adopt
MWD	X		X	X	X
Burbank Community Development Dept.	X	X	X	X	
Burbank Public Works Department	X	X	X	X	
Los Angeles County				X	X
City of Glendale			X	X	X
General Public		X	X	X	X

* Public hearing regarding draft UWMP adoption

1.4 UWMP Adoption

State law requires the 2015 UWMP be adopted by the City Council prior to its electronic submittal to the California Department of Water Resources (DWR) on or before July 1, 2016. The BWP Board endorsed the UWMP at its meeting on May 5th, 2016. A public hearing regarding the adoption of the UWMP was held at Burbank's City Council Meeting on June 14th, 2016. At the conclusion of the hearing, the City Council adopted the 2015 UWMP via resolution and a copy of the adopted resolution is included in Appendix B. No later than 30 days after City Council's adoption the City will submit the adopted 2015 UWMP to the California State Library and post it on BWP's website. Burbank will implement its adopted UWMP through the actions and policies of the Water Division of BWP.

1.5 Organization of This Document

- Section 1 is an introduction and a brief history of Burbank's UWMP
- Section 2 provides background information on the City of Burbank including:
    - Historical and expected future development
    - Climate and demographic information, including historical and projected population figures
    - Description of the water system
    - Past and current water use data
- Section 3 covers the City's projected water demands
- Section 4 describes the City's water supplies

- Section 5 outlines the City's water recycling efforts
- Section 6 is the Water Shortage Contingency Plan
- Section 7 describes demand management measures which have been and will be enacted
- Section 8 contains an evaluation of water distribution system losses

The Appendices provide detailed information that is best presented outside the body of the Plan text.

1.6 Project Team

This UWMP was prepared under the overall guidance of Bill Mace, AGM-Water Systems. The UWMP was prepared by Matt Elsner, Principal Civil Engineer and Bob Doxsee, Civil Engineering Associate, of the BWP Water Division. Support was also provided by Bassil Nahhas, Principal Civil Engineer, Tony Umphenour, Water Quality Analyst, and Joe Flores, Marketing Associate/Public Information Officer.

SECTION 2: SERVICE AREA INFORMATION

2.1 Historical Background

The City of Burbank is located in southern California approximately 12 miles north of downtown Los Angeles, as shown on Figure 2-1. The City covers approximately 17 square miles (10,880 acres) of the eastern end of the San Fernando Valley. The City of Los Angeles lies to the north and west and the City of Glendale to the south and east.

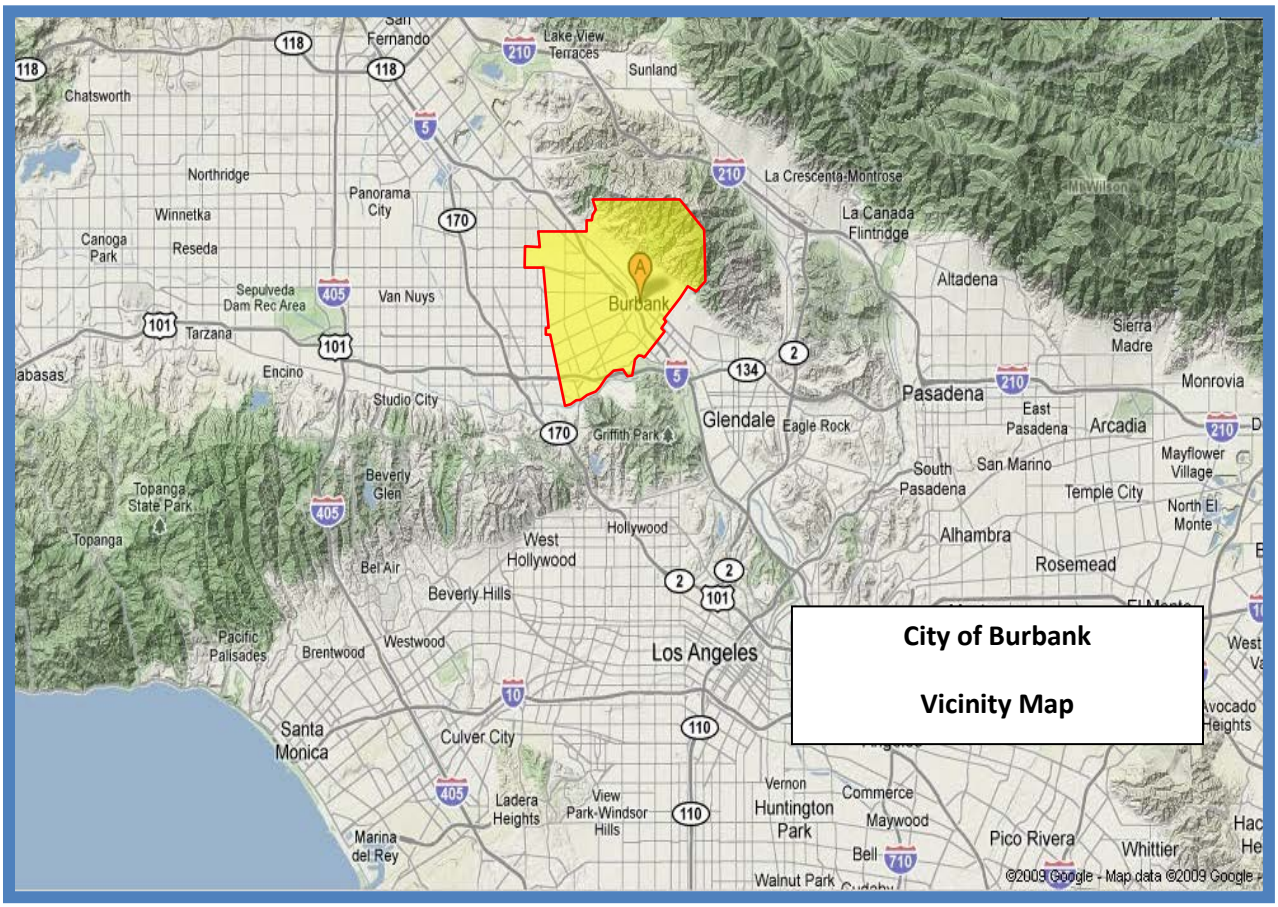


Figure 2-1: Burbank Vicinity Map

There has been a community known as Burbank since 1887. The City of Burbank was officially established in 1911. The municipal water and electric utility was founded in 1913. In 1914, an additional 9.4 square miles were annexed, establishing today's total area of 17.1 square miles and the population grew to almost 14,000. Burbank was one of the 13 founding agencies of MWD in 1928 to secure its future water supplies.

World War II brought rapid industrial growth. During the war, 94,000 people were employed at Lockheed Corporation (Lockheed) aircraft facilities within the City. Population grew to 53,899 by 1943, and to 78,577 by 1950. Growth continued at a slower rate for the next 20 years. In 1970 the population

was 88,871. By 1980 the population had decreased to 84,625 and the average age of citizens had increased. The 1980s brought new growth, including several high-rise office buildings and dozens of new apartment and condominium buildings on lots that originally had single-family homes although they were zoned for multi-family. Population had increased to 93,643 by 1990.

Lockheed closed its facilities in 1991. During a period when there was economic recession, the population did not decline. The 1990s brought expansion of the movie and television industry and a revitalization of the downtown area. The population grew to 100,316 by the 2000 census. Since 2000, former Lockheed and other industrial sites have been redeveloped for commercial and retail uses. Downtown renewal continues. There has been a return to intensive multi-family residential construction that replaces, or sometimes adds on to, older single-family and small multi-family units.

2.2 Population and Demographics

Burbank has a current population of 106,084. There are an estimated 45,000 housing units, approximately half single-family and half multi-family, with a 5% vacancy rate. The occupied housing units average 2.50 persons per household. Employment is about 100,000 (Burbank 2035 General Plan Housing Element, January 2014.) Employment is in a variety of commercial and industrial operations, notably entertainment/media, retail, health care, and manufacturing. Population is expected to reach nearly 120,000 by the year 2040. A summary of current and future population predictions is shown in Table 2-1. This table, and many others required by the DWR for electronic upload into their systems are contained in Appendix C.

Table 2-1: Population Projections

Year	2015	2020	2025	2030	2035	2040
Population	106,084	112,451	113,179	114,850	115,680	118,821

The greatest amount of growth in the next several decades is expected to be in the commercial area. The City expects to see an intensification of commercial land use in the downtown area and an increased amount of mixed-use development (i.e., residential/commercial/retail) along transportation corridors and transportation nodes. New residential development will be predominantly multi-family which will increase the population density due to redevelopment of older single-family homes on lots zoned for multi-family use. Redevelopment of areas adjacent to downtown is expected to continue, especially along the South San Fernando Boulevard corridor and the area around the Metrolink station. The smallest expected growth will be in the number of single-family residential dwelling units, if not a reduction.

2.3 Climate

Burbank's climate is considered Mediterranean which is warm and dry during summer and cool and wet during winter. A summary of monthly climate data is contained in Table 2-2 below. The warmest month of the year is August with an average high near 90˚F, while the coldest month of the year is December

with an average low in the low 40s F. Temperature variations between night and day tend to be moderate during summer and winter.

The historical annual average precipitation in Burbank is 17.5 inches. Winter months tend to be wetter than summer months. The wettest month of the year is February with an average rainfall of 4.3 inches.

Table 2-2: Climate Data for Burbank

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max °F	67.5	69.5	70.6	74.9	77.5	83.2	88.9	89.9	87.1	81.5	73.5	67.9
Mean °F	54.8	56.9	58.4	62.2	65.9	70.8	75.5	76.2	73.5	67.6	59.5	54.6
Min °F	42.0	44.3	46.2	49.5	54.2	58.3	62.1	62.4	59.9	53.6	45.4	41.3
Precip. (in)	3.56	4.29	3.88	1.02	0.37	0.12	0.02	0.18	0.30	0.55	1.05	2.15
ET (in)	2.20	2.45	3.64	4.74	5.31	6.06	6.75	6.66	5.01	3.95	2.73	2.31
ET deficit (in)	0.00	0.00	0.00	3.72	4.94	5.94	6.73	6.48	4.71	3.40	1.68	0.16

Due to its moderate climate, there is considerable water demand for landscape irrigation for growing a variety of plants. The total average evapotranspiration (ET) deficit, which must be made up with irrigation, is almost 38 in/year. Water meter data indicates that historic irrigation rates between 42 in/yr and 48 in/yr are common for turf areas.

2.4 Water System

Burbank does not own any native groundwater rights and extracts groundwater supplies under terms outlined in the 1979 water rights Judgment for the San Fernando Basin which is discussed fully in Section 4.2. BWP provides potable water and recycled water to customers within the City. BWP's potable water supply is comprised of water from MWD and groundwater from production wells within the City. MWD imports its water from Northern California via the State Water Project (SWP) and also the Colorado River via the Colorado River Aqueduct (CRA). All groundwater extracted in Burbank is treated to remove Volatile Organic Compounds (VOCs) at the Burbank Operable Unit (BOU) prior to entering the distribution system. Recycled water is produced at the Burbank Water Reclamation Plant (BWRP), operated by the Burbank Public Works Department, and is delivered via an independent distribution system. Section 3 contains more information about potable water supplies, and Section 5 describes the recycled water system.

Burbank's potable water system includes approximately 286 miles of pipelines ranging in size from 30 inches to 1-1/2 inches in diameter, 35 booster pumps, 21 tanks and reservoirs, eight wells, five MWD connections, and over 26,000 service connections. The water distribution system consists of three major pressure zones and eight smaller hillside zones (see Figure 2-2). The three largest pressure zones are denoted Zones 1, 2, and 3. Zone 1 encompasses approximately 90% of the total City land area and represents 88% of the total City demand. The ground surface elevations in Zone 1 range from 480 feet

above mean sea level (MSL) at the southerly boundary at Chavez Street and Linden Avenue, to 830 feet MSL on Bel Aire Drive at Orange Grove Avenue. The reservoirs that serve Zone 1 have a hydraulic elevation of 904 feet MSL.

Almost all of the water supplies enter the system in Zone 1. The only exception is that some water from one of the five MWD connections (B-5) can feed Zone 2. Water is pumped from Zone 1 to Zones 2 and 3 at hydraulic elevations 991 and 1,156 feet MSL, respectively. From Zones 2 and 3, water is pumped to the eight hillside zones through successive pumping stations.

The potable system's tanks and reservoirs range in capacity from 13,500 gallons to 25 million gallons (MG). The combined storage capability of all the reservoirs is approximately 60 MG. The storage capacity of Zone 1 is approximately 50 MG, 83% of the total system storage.

Water demands by individual customers are subject to wide daily and seasonal fluctuations. Burbank's system has been designed to accommodate variability of water demands. The system includes large storage reservoirs to accommodate hourly flow and demand variations throughout the distribution system. The storage capacity is large enough to allow for short interruptions (1 to 3 days at average flow) in the water supply.

Most of Burbank's pressure zones are open, i.e. open to the atmosphere and pressurized by gravity. There are two small closed pressure zones, one in the Walnut Zone near the DeBell Golf Course and the other in Wildwood Canyon Park. Lowering pressures in these zones would have a minimal effect on reducing system losses or consumption. Burbank has very low rates of unaccounted for water averaging 2.29% for the years 2011-2015. This is discussed further in Section 3.1.

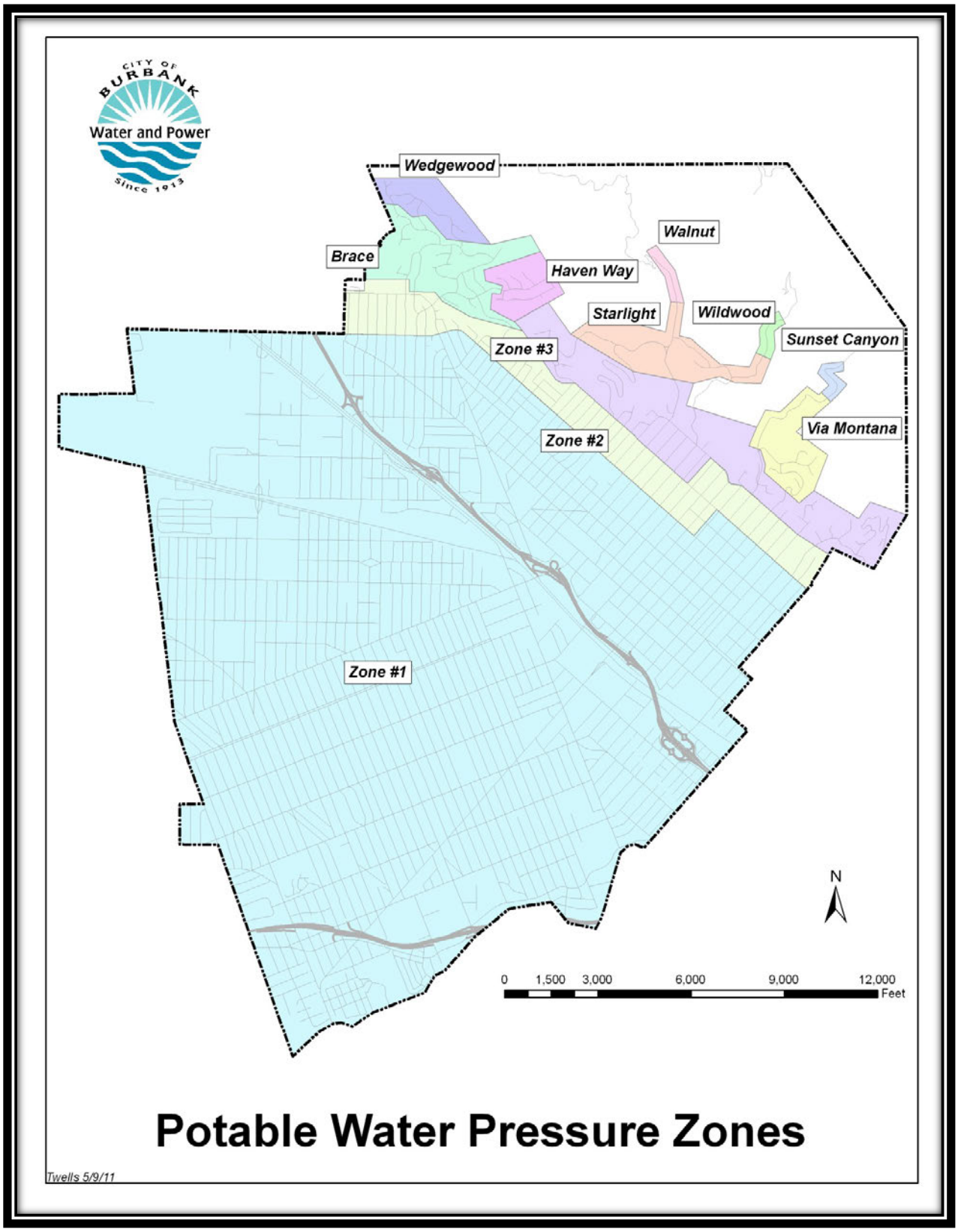


Figure 2-2: Burbank's Potable Water System and Pressure Zones

SECTION 3: SYSTEM DEMANDS

3.1 Past and Current Water Use

Burbank's water use is urban encompassing residential, commercial, and governmental uses. There are no agricultural water services although some services are used exclusively for landscape irrigation. Burbank maintains records of the following:

- Water delivered from MWD
- Groundwater produced and treated
- Potable water sales in units of 100 cubic feet (CCF) by class of service
- Number of water meters for each of the customer classes
- Recycled water delivered

The following customer classes are contained in BWP's billing system:

- Single-family residential
- Multi-family residential
- Commercial
- City departments
- Fire protection
- Temporary water
- Recycled

Recycled water is discussed separately in Section 5, while the rest of Section 3 focuses on potable water. The annual potable water sales for 2011 through 2015 averaged 7,553,000 CCF (5,650 MG or 17,339 acre-feet [AF]). Table 3-1 identifies the breakdown of water sales by class.

Table 3-1: Potable Water Sales Percentages by Class

Class	Percentage
Single-family residential	49.00%
Multi-family residential	24.72%
Commercial	24.18%
City departments	1.92%
Fire protection	0.04%
Temporary water	0.14%

Over the same five years, the average water demand was 15.9 million gallons per day (MGD). Annual maximum day demands averaged 21.9 MGD. The maximum day usually occurs between the months of June and September. Burbank's weather was moderate but severely dry during the last five years which normally would have increased demand but mandatory conservation resulted in lower demands.

Variation in water demand is attributed to changes in temperature and rainfall, as well as changes in economic conditions, and scarcity (i.e., requests to conserve during droughts). An exceptionally wet,

cool year will reduce the water use, while a hot, dry year will increase water use. Demands may be higher than average during drought years, although calls for conservation can reduce demand.

Unaccounted-for water averaged 2.9% over the past five years. Unaccounted-for water is calculated as the difference between water delivered to the system and metered sales to customers, accounting for changes in reservoir storage. Unaccounted-for water is lost through unmetered use (flow testing, reservoir cleaning, main flushing, firefighting, etc.), faulty meters, evaporation, sheared hydrants, and system leaks. It should be noted that the industry average for unaccounted-for water is 7%.

Burbank's water demands have decreased compared to the early 1970s. The average daily water demand decreased from 24.0 to 19.6 MGD between 1970 and 1999. Maximum day water demands were 37 to 39 MGD in the early 1970s, but have not exceeded 36 MGD since 1976. The demands have decreased due to efficient water use after major droughts in the 1970s, 1990s, and especially in response to the water shortage of the past few years. Industrial use has also reduced since some major industries have closed. Stepped-up programs of water meter maintenance, testing, and replacement have significantly helped to reduce unaccounted-for water.

Water use varies with the seasons and also during the course of each day. Water use for the maximum day of the year generally is 150% of (one and one-half times) the average daily water use. On a hot summer day, water use reaches its peak at 7 PM and its minimum at 3 AM. The rate of water use at the peak hour of the maximum day is about 200% of (twice) the rate for the entire maximum day, while the minimum flow rate at 3 AM is about 40% of the maximum day demand.

Residential water use is the major contributor of the system peak hour water use. Due to the ongoing drought and implementing Stage II and III measures of the Sustainable Water Use Ordinance (SWUO), demand during peak hour use has decreased. Most non-residential users like schools and parks have been converted to recycled water within the last 5 years which consequentially eased peak hour and peak season demand. Other non-residential users, which include government and commercial entities, do not contribute very much to the peak hour and peak season. 2015 calendar year water deliveries to customers by water use sector are presented in Table 3-2.

Table 3-2: 2015 Actual Potable Water Deliveries

Water Use Sector	Total Volume (AF)
Single-family residential	6,679
Multi-family residential	3,946
Commercial	3,613
City departments/Fire protection/Temporary water	270
Losses	535
TOTAL	15,042

3.2 Baselines and Targets

Senate Bill 7 in (SBx7-7), passed in November 2009, required urban water suppliers to reduce per capita water use 20% by 2020. DWR prepared a manual with methodologies for calculating compliance and these calculations were shown in the 2010 Plan. The water use target calculation must be repeated in this 2015 UWMP using population data that now reflects the 2010 census. For Burbank, the 2020 target changed from 156 gpcd to 157 gpcd. SBx7-7 also included 5-year interim targets to be achieved for 2015 and reported in the 2015 UWMP. The first step to compliance is determining the target which will represent a 20% reduction in water sales. Calculating the target begins with collecting the data contained in Table 3-3 below.

Table 3-3: Base Period Information

Base Period	Parameter	Value
10 to 15-year Base Period	2008 Total Water Deliveries	23,909 AF
	2008 Total Volume of Delivered Recycled Water	2,032 AF
	2008 Recycled Water as a Percent of Total Deliveries	8.5%
	Number of Years in Base Period	10 years
	Year Beginning Base Period	1997
	Year Ending Base Period Range	2006
5-Year Base Period	Number of Years in Base Period	5 years
	Year beginning Base Period Range	2003
	Year Ending Base Period Range	2007

Recycled water use in 2008 was less than 10% of total deliveries. As a result, the City is required to use a ten-year base period for the calculation. Any ten-year base period between 1995 and 2010 can be selected for the base period. After evaluating water production for the calendar years from 1995 through 2010, the ten-year base period of 1997 through 2006 was selected. Similarly, a five year base period between 2003 and 2010 was selected for another step of the calculation. The years 2003 through 2007 were used for the five-year period.

Table 3-4 contains the water supply and population data for each of the ten years in the base period and the resulting daily per capita water use figures. Water use is BWP's total potable production which comprises MWD treated water and local treated groundwater. The population data was obtained from the California Department of Finance website. Averaging over the ten-year base period results in a base daily per capita water use of 197 gpcd for the ten-year base period.

Per DWR's calculation method 1, the Urban Water Use Target for the year 2020 is 80% of the ten-year base period average. Accordingly, 80% of 197 is equal to 157 gpcd. Regulations require this target be less than 95% of the five-year base period annual average. The five-year base period data is contained in Table 3-5 below.

Table 3-4: Ten-Year Base Period (1997-2006)

Sequence Year	Calendar Year	Distribution System Population	Annual System Gross Water Use (AF)	Annual Daily per Capita Water Use (gpcd)
Year 1	1997	97,326	21,910	201
Year 2	1998	98,303	20,726	188
Year 3	1999	98,817	21,890	198
Year 4	2000	100,316	23,084	205
Year 5	2001	100,869	22,287	197
Year 6	2002	101,572	22,576	198
Year 7	2003	102,574	22,636	197
Year 8	2004	102,872	22,852	198
Year 9	2005	103,122	21,839	189
Year 10	2006	103,060	22,479	195
			Base Daily Per Capita Water Use (average)	197

Table 3-5: Five-Year Base Period (2003-2007)

Sequence Year	Calendar Year	Distribution System Population	Annual System Gross Water Use (AF)	Annual Daily per Capita Water Use (gpcd)
Year 1	2003	102,574	22,636	197
Year 2	2004	102,872	22,852	198
Year 3	2005	103,122	21,839	189
Year 4	2006	103,060	22,479	195
Year 5	2007	103,121	23,029	199
			Base Daily Per Capita Water Use (average)	196

The five-year base period average use is 196 gpcd. 95% of that value is 186 gpcd, which is greater than 157 gpcd ten-year target. **Therefore, the Burbank's urban water use target for the year 2020 is 157 gpcd (20x2020 Target).**

SB7x7 also requires meeting a 5-year Interim Urban Water Use Target in the year 2015. The 2015 target is the average of the 2020 Urban Water Use Target (157 gpcd) and the base use (197 gpcd). That gives a target water use of 177 gpcd. Burbank's water use was already well below this target in 2010, and in 2015, with special drought measures, it was only 127 gpcd.

3.3 Water Demand Projections

Burbank's water use reached the required 20x2020 Target in 2010 and 2011 by implementing Stage II of its SWUO. The City returned to Stage I in 2012 after sufficient rain in 2011 and the encouraging water supply outlook. For 2012 -2014, usage crept above the 2020 goal but stayed below the interim 2015 level of 177 gpcd. Actual 2015 usage was 127 gpcd due to the Governor's mandate and BWP

implementing Stage III water conservation measures. The City believes it can sustain low water use and meet the 20x2020 Target with three-day-per-week landscape irrigation, even after the mandate is lifted.

Potable water demands for 2020, 2025, 2030, 2035, and 2040 are estimated by using population projections with gallons per capita water usage rates similar to those used in the MWD Integrated Water Resources Plan (IWRP; Draft 2015 Update). MWD provided Burbank and other agencies with population and supply and demand calculations developed for their regional planning. Water usage is projected to increase to 150 gpcd for 2020, and then gradually to decrease by 2040 to 130 gpcd, similar to what has been achieved during the current drought, but more sustainably. (Figure 4-1 in the MWD IWRP shows a similar pattern.) The total demands are divided among water use sectors by starting with 2015 records of water sales by customer class, then using projected growth numbers for housing units and employment. Table 3-6 contains the projected demands by water use classes.

Table 3-6: Future Water Demands

Water Use Sector	2020 (AF)	2025 (AF)	2030 (AF)	2035 (AF)	2040 (AF)
Single-family	8,481	8,061	7,817	7,543	7,412
Multi-family	5,011	4,924	4,805	4,629	4,640
Commercial/Industrial/ Institutional/Governmental	4,930	4,938	4,939	4,884	4,818
TOTAL	18,422	17,923	17,561	17,056	16,870

The single-family and multi-family residential classes include low-income households. The water demands attributed to low-income households were estimated by calculating the percentages of accounts under BWP's Lifeline program compared with the total numbers of residential units. These percentages were then applied to the total projected single-family and multi-family water demands. The Lifeline program offers financial support for low-income customers who are either, (1) a senior over 62, (2) a person with a permanent disability, or (3) require the use of life support in their home. The estimated volumes are shown in Table 3-7.

Table 3-7: Projected Low Income Water Demands

Water Use Sector	2015 (AF)	2020 (AF)	2025 (AF)	2030 (AF)	2035 (AF)
Single-family	80	80	85	90	90
Multi-family	320	330	340	355	365
TOTAL	400	410	425	445	455

Burbank's future water demand may be impacted by large development projects. The City Council may choose to implement "water neutral" ordinances to ensure that new developments do not increase overall regional water demand. That could be achieved through efficiency measures, using recycled water, or through offset fees that would go into water conservation programs. Below are four proposed

projects which may impact BWP's future water demand. These projects may require an additional Water Supply Assessment in accordance with the Urban Water Management Planning Act.

1. 3100 North Hollywood Way (B-6 Opportunity Site): Business Park on an existing 40 acre feet vacant site. The project would include six industrial buildings of approximately 937,980 square feet (SF), ten office buildings of 130,000 SF, and a 175-room hotel of 110,000 SF.
2. 600 North San Fernando (Burbank Town Center): Mixed-use development on a 37 acre site that would include demolition of 200,000 SF of retail buildings (including the existing IKEA). The project proposes 1,094 residential units, 45,000 SF of retail, and a 200 room hotel.
3. 103 East Verdugo Ave (The Premier on First): The project consists of two phases. Phase 1 includes a 14-story residential tower with a total of 154 multi-family units, and 11,078 SF ground floor retail space. Phase 2 has two options; Option "A" includes a 14-story 230 room hotel, and 7,100 SF restaurant on the top floor, Option "B" includes a 14-story office building with approximately 159,000 SF, and approximately 14,000 SF of retail/restaurant space on the ground floor.
4. 115 North Screenland Drive: A 13 story mixed use project that includes 40 apartments and 3,730 SF of ground floor commercial. The proposed building would be 170 feet tall with two subterranean parking levels, commercial uses on the first floor, parking spaces and common open space with amenities on the second floor, apartment units on floors three through 12 (four apartment units per floor), and amenities on the 13th floor.

Non-potable water uses and losses must be evaluated as a component of total water demands. Table 3-8 contains the expected amounts of groundwater recharge, recycled water deliveries (described in Section 5), and system losses. Losses are at 2.5% of potable water deliveries. Losses for 2011-2015 were approximately 2.9% of potable water deliveries.

Table 3-8: Additional Water Uses and Losses

Water Use	2015 (AF)	2020 (AF)	2025 (AF)	2030 (AF)	2035 (AF)	2040 (AF)
Groundwater Recharge	7,350	6,300	4,700	4,800	4,900	4,900
Recycled Water	2,463	3,027	3,047	3,047	3,047	3,047
System Losses	535	472	460	450	437	433
TOTAL	10,348	9,799	8,207	8,297	8,384	8,380

Table 3-9 combines the data from several tables to calculate the total water use. The City plans to exchange 300 AF of recycled water with LADWP for landscape uses by 2020, increasing to 2,000 AF/year by 2025.

Table 3-9: Total Water Use

Water Use	2015 (AF)	2020 (AF)	2025 (AF)	2030 (AF)	2035 (AF)	2040 (AF)
Total Deliveries	24,855	28,221	26,130	25,858	25,440	25,250
Recycled Water Exchanged with LA for Groundwater Credits	0	300	2,000	2,000	2,000	2,000
TOTAL	24,855	28,521	28,130	27,858	27,440	27,250

DWR requires water wholesalers and retailers to exchange water demand information. Burbank routinely works with MWD to coordinate water requirements and water demand projections. Table 3-10 contains the City's projected demands for MWD supplies as developed in this Plan. MWD will receive a final version of Burbank's Plan.

Table 3-10: Anticipated MWD Demands

Wholesaler	2015 (AF)	2020 (AF)	2025 (AF)	2030 (AF)	2035 (AF)	2040 (AF)
MWD Treated Potable	4,765	7,894	7,383	7,011	6,493	6,303
MWD Untreated GW Replenishment	7,350	6,300	4,700	4,800	4,900	4,900

3.4 Water Use Reduction Plan

Burbank met the 20% urban water use reduction goals by implementing Stage II of its SWUO. Dramatic reductions in water use have been achieved by programs which include the following:

- Sustainable Water Use Ordinance
- Commercial/multi-family water fixture upgrade program
- Conservation water rate structure
- Retrofit Upon Resale Ordinance
- Expansion of recycled water system
- Green Home House Call Program

Conservation rates and rules apply to Burbank's residential and business properties. Some programs, such as mandatory fixture upgrades and recycled water connections, apply to business. Recycled water utilization is required when available by City policies as a condition of water service. Capital costs to the residents and businesses to implement these programs are often offset by the resulting water use reductions, and in the case of recycled water, its reduced volumetric rate. These programs and policies regarding water use appear to be working.

SECTION 4: SYSTEM SUPPLIES

4.1 Metropolitan Water District

The water supply for the City of Burbank is imported from outside the region through Burbank's membership in MWD. MWD delivers both treated and untreated water to Southern California via two sources. Water from Northern California is imported by way of the SWP and water from the Colorado River reaches the region through the CRA. MWD has five treatment plants which supply most of Southern California with treated water through their distribution system. Burbank obtained about 32% of its treated potable water from MWD in the Calendar Year 2015. In 2015, 100% of the water from MWD was from the CRA due to the drought and DWR restricting SWP. This had a negative effect on customers as well as the recycled water because CRA has a high mineral content.

Burbank has five treated potable water connections to the MWD system, with a maximum rated capacity of 115 cubic feet per second (cfs) (51,610 gallons per minute; see Table 4-1 below). The MWD system pressure is high enough to deliver water to Burbank's Zone 1 and Zone 2 without pumping, but booster pumps are available at MWD connections B-1 and B-2 to increase the capacity for periods of high demand.

Table 4-1: MWD Service Connection Capacity

MWD Connection	Minimum Flow	Normal Range	90% of Maximum	Maximum Flow
B-1	3.0 cfs	15.0 - 22.0 cfs	27.0 cfs	30.0 cfs
B-2	1.5 cfs	3.0 - 7.0 cfs	13.5 cfs	15.0 cfs
B-3	1.0 cfs	3.0 - 4.0 cfs	9.0 cfs	10.0 cfs
B-4	2.0 cfs	11.0 - 14.0 cfs	18.0 cfs	20.0 cfs
B-5	4.0 cfs	7.0 - 26.0 cfs	36.0 cfs	40.0 cfs
Total Treated	11.5 cfs	39.0 - 73.0 cfs	103.5 cfs	115.0 cfs
B-6 Untreated Water Connection at Pacoima	3 cfs	25 - 65 cfs	63 cfs	70 cfs

Burbank's MWD service connections are not able to take the maximum flows. Improvements to the service connections could be performed to realize their maximum potential if future demands make it necessary. The nominal maximum capacity of the five connections is vastly more than expected requirements for the next 25 years. The water supply tables in this UWMP use expected requirements not maximum capacity.

Burbank's demand for treated MWD water has actually decreased since groundwater treatment facilities described in Section 4.2 have come on-line. In 1990, Burbank used approximately 23,000 AF of treated MWD water. Burbank used approximately 7,852 AF in 2010 and 4,765 AF in 2015. The projection

for 2040 is 6,303 AF (Table 4-2). The City will continue to depend on MWD treated water for blending purposes and MWD non-potable water to augment its groundwater pumping rights.

Table 4-2: Water Supplies – Current and Projected

Source	2015 (AF)	2020 (AF)	2025 (AF)	2030 (AF)	2035 (AF)	2040 (AF)
Potable:						
MWD Treated Potable	4,765	7,894	7,383	7,011	6,493	6,303
Supplier-Produced Groundwater	10,277	11,000	11,000	11,000	11,000	11,000
Potable Total	15,042	18,894	18,383	18,011	17,493	17,303
Non-potable:						
MWD Replenishment	7,350	6,300	4,700	4,800	4,900	4,900
Recycled Water	2,463	3,327	5,047	5,047	5,047	5,047
Non-Potable Total	9,813	9,627	9,747	9,847	9,947	9,947

In 2010 the City completed a MWD connection (B-6) to deliver untreated imported water for groundwater replenishment to the existing Pacoima and Lopez spreading grounds in the north San Fernando Valley. A schematic of the project is shown in Figure 4-1 below. The City purchased and spread 26,113 AF between 2010 and 2013. Due to the extreme drought there was no replenishment water available for spreading in 2014 and 2015 (except 481 AF from turning over water in the tunnel to maintain water quality). The City, working with MWD and the Los Angeles Department of Water and Power (LADWP), for the years 2014 and 2015, purchased 14,400 AF of untreated water in lieu of spreading and sent the water to LADWP in exchange for groundwater credits.

MWD's projected demands for Burbank are shown in Table 4-3. These demands are higher than BWP's projections (Table 4-2). BWP's projections account for a decrease in water demand due to focused conservation and recycled water exchanges with LADWP. Therefore, MWD will have enough water to meet BWP's anticipated future demands.

Table 4-3: Wholesale Supplies

Source	2020	2025	2030	2035	2040
MWD Potable	7,926	7,675	7,604	7,589	7,725
MWD Replenishment*	5,900	5,898	5,877	5,892	5,844

* Assumes no purchase of Physical Solution water from LADWP as described in Section 4.2

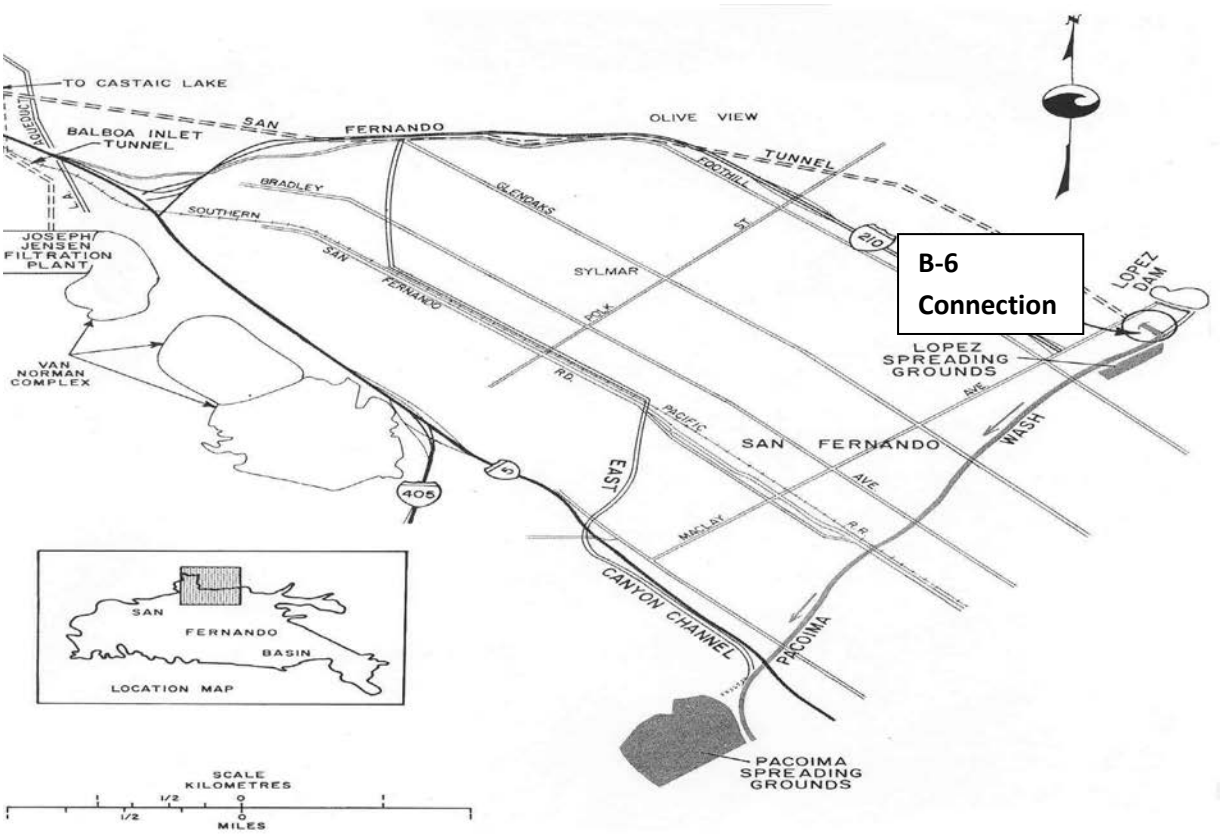


Figure 4-1: Burbank's Groundwater Recharge Project

4.2 Groundwater

Burbank pumps its groundwater from the aquifer in the San Fernando Basin (SFB). The SFB consists of 112,000 acres and comprises over 90% of the total San Fernando Valley fill. A map of the basin is shown in Figure 4-2 below. The San Rafael Hills, Verdugo Mountains, and San Gabriel Mountains bound the SFB on the east and northeast. The northern border of the basin is defined by the San Gabriel Mountains and the eroded south limb of the Little Tujunga Syncline which separates it from the Sylmar Basin. The basin is bounded on the northwest and west by the Santa Susana Mountains and Simi Hills and on the south by the Santa Monica Mountains.

Burbank has historically utilized its groundwater resources. Imported water from MWD in the early years was a supplemental supply. During this time, well and pumping capacity was adequate to serve most of the City's needs with local groundwater. As the City grew, it used more MWD water, but groundwater was still a major source.

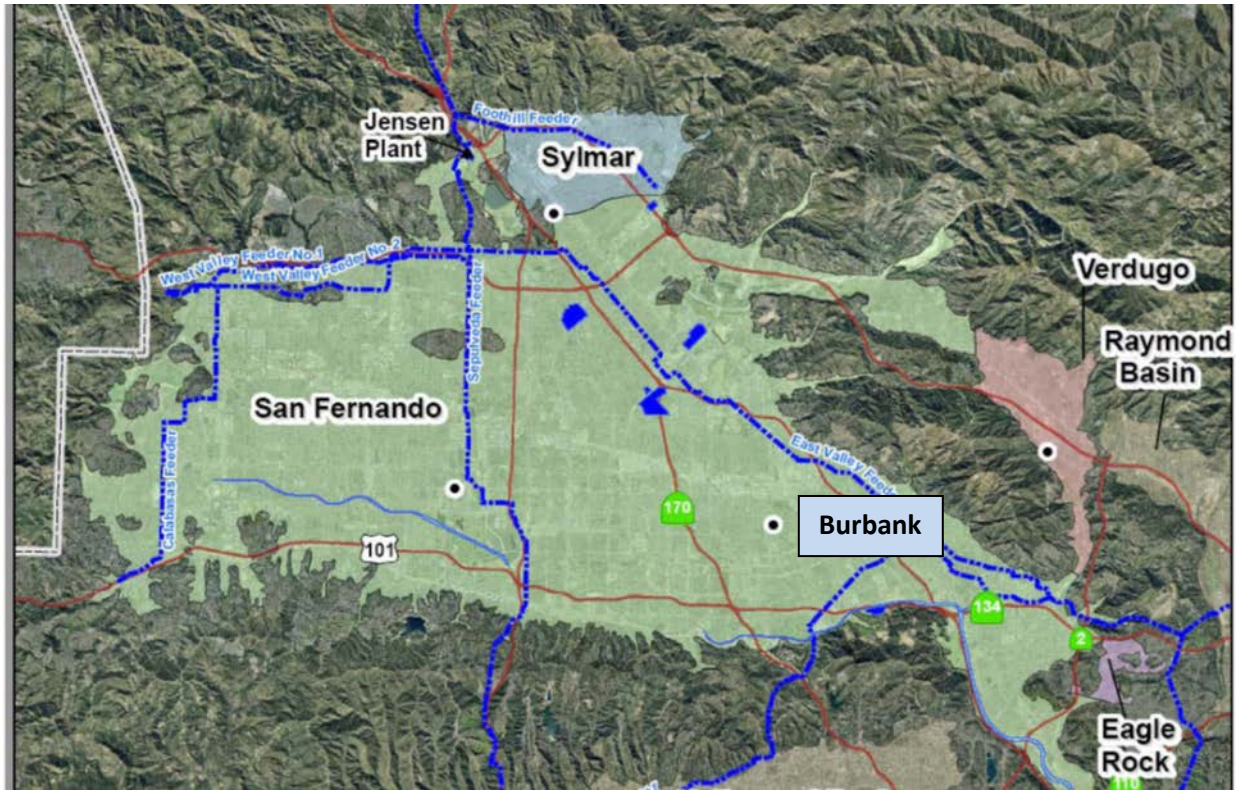


Figure 4-2: San Fernando Groundwater Basin

The ownership or rights to naturally occurring water in the SFB, also known as the Upper Los Angeles River Area (ULARA), was decided in Superior Court Case No. 650079, City of Los Angeles vs. the City of San Fernando, et al and are adjudicated in the Final Judgment (Judgment) entered on January 26, 1979. The Judgment upheld the Pueblo Water Rights of the City of Los Angeles to all groundwater in the SFB derived from precipitation (infiltration of direct rain fall plus surface water runoff) within ULARA. The Judgment also included provisions for an Import Return Credit (IRC), storage of imported water, stored water credits, and Physical Solution Water for certain parties.

Burbank is entitled to an IRC of 20% of all water delivered in Burbank, including recycled water. This provision was incorporated into the Judgement since a portion of the water delivered in Burbank, which originates from outside ULARA, percolates into the aquifer, becoming part of the groundwater supply. The IRC is calculated on an annual basis by the ULARA Watermaster. For example, total deliveries in the 2014-15 water year were 17,917 AF, so the 20% ICR is calculated to be 3,583 AF. The Watermaster prepares an annual report which describes pumping activities for the basin. Additional information regarding the SFB can be found on the ULARA Watermaster's website at http://ularawatermaster.com/.

Burbank is also entitled to import water and spread or percolate this water into the aquifer thus creating additional groundwater and the right to pump that additional groundwater. Burbank is entitled to accumulate or store these groundwater credits if they are unused in the year they are earned or created.

The provision of a right to Physical Solution Water recognized the investment in wells, pumping equipment, and transmission mains that were made by Burbank and others prior to the Judgment when the parties in ULARA, other than the City of Los Angeles, were believed to have rights to pump water originating from local precipitation. Physical Solution stipulates a right to a specified volume of groundwater "credits" that may be purchased from the City of Los Angeles at the sole discretion of the purchasing party on an annual basis. The cost of this water is set by a formula in the Judgment and is tied to the average cost of water supply to the City of Los Angeles in the preceding year. Burbank is entitled to purchase 4,200 AF of Physical Solution Water annually.

In the 1980s groundwater from the City's production wells were found to have varying degrees of VOC contamination. At this time similar contamination was being found in many parts of the country. Burbank's contamination resulted in a complete loss of the groundwater supply until treatment plants could be built. Burbank now has two treatment plants for VOC removal, described in the following sections and shown in Figure 4-3 below. Also, inorganic substances like nitrate and chromium have presented problems which are discussed in the following sections. In 1997 California State regulators classified highly contaminated groundwater including the aquifer underlying Burbank as "Extremely Impaired Sources".

4.3 Burbank Operable Unit and Valley Pumping Plant

The BOU is an EPA-led project to clean up groundwater impacted by historical industrial releases, primarily by Lockheed-Martin. The BOU project consisted of drilling 8 extraction wells and constructing a state-of-the-art treatment plant using Best Available Technology (Air Stripping Towers and Granular Activated Carbon Filters) to remove and stabilize the VOC plumes within the aquifer. Completion of this project restored a major component to the City's water supply. The Consent Decree for the project was "entered" on March 25, 1992. Lockheed-Martin started construction on June 23, 1993 and the project began operation in January 1996.

The eight wells and the VOC removal treatment plant were operated by Lockheed-Martin until March 2001, when the City of Burbank took over operation. The BOU's design capacity is 9,000 gallons per minute (gpm). Assuming 85% availability, the annual production would be 12,336 AF per year, about two thirds of the City's current potable water requirement. However, mechanical problems and regulated blending requirements to lower nitrate and chromium concentrations in conjunction with lower system demand to accept this blended water has reduced the production levels to 10,000 AF over the last five years.

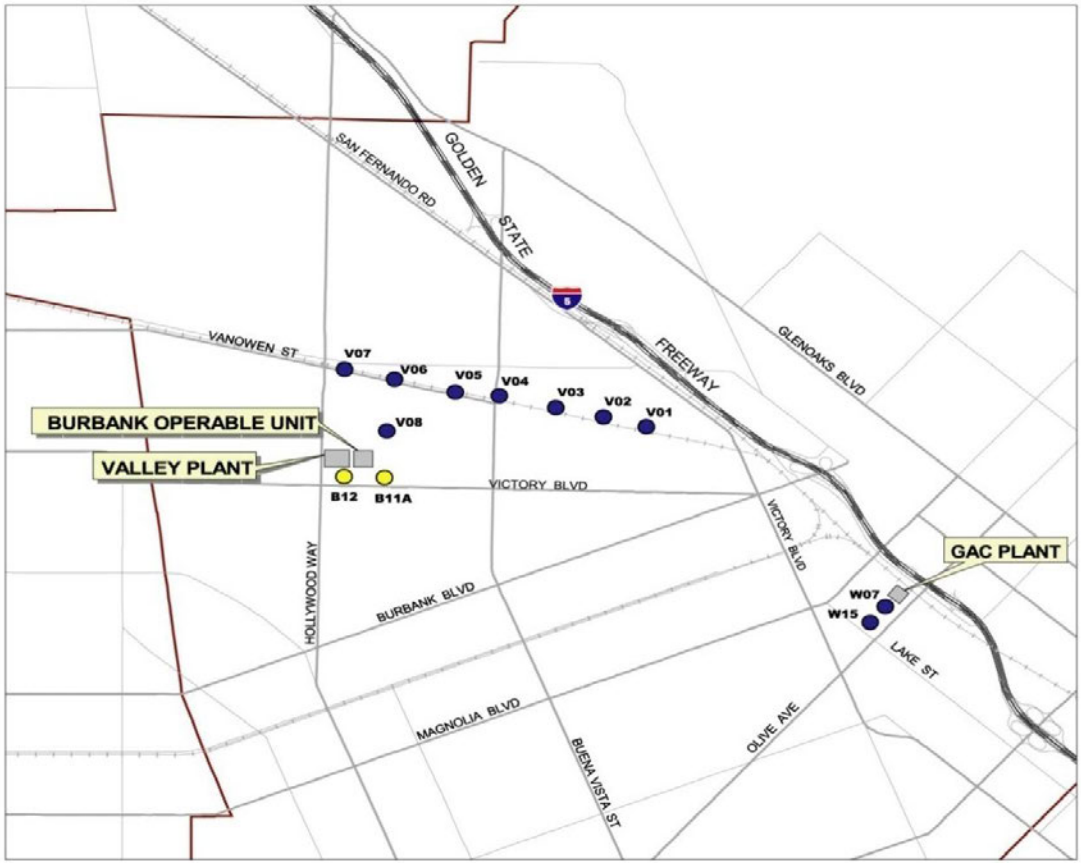


Figure 4-3: Burbank's Groundwater Production Facilities

A summary of recent groundwater pumping is contained in Table 4-4. The projected output for 2016 is 11,000 AF due to ongoing plant improvements and modifications in the past five years. The City expects to produce 11,000 AF per year through 2035.

Table 4-4: Groundwater Volume Pumped

Calendar Year	2011	2012	2013	2014	2015
Groundwater Produced	10,138 AF	10,462 AF	11,191 AF	9,511 AF	10,277 AF
Groundwater as a Percent of Total Water Supply	57%	56%	58%	52%	68%

The Valley Pumping Plant was designed to allow blending of BOU water with MWD water to reduce nitrate levels. Subsequently, hexavalent chromium (Cr6) has also been found in the groundwater. On July 1, 2014, the California Department of Public Health (CDPH) set the Maximum Contaminant Level (MCL) regulation for Cr6 at 10 parts per billion (ppb). Water from an 'Extremely Impaired Source' must meet stricter limits of 80% of the MCLs. Groundwater from the BOU must be blended with MWD to meet this Cr6 limit of 8 ppb (80% of 10 ppb).

The BOU's drinking water permit mandates blending to meet acceptable nitrate levels. If the MWD supply were interrupted, production of groundwater from the Valley/BOU plant would also need to be stopped to avoid exceeding the nitrate and Cr6 MCL. Recent water quality data shows decreased nitrate levels at the BOU wells indicating it could supply the City without blending in case of an emergency MWD shutdown. However, the facility's drinking water permit requires blending and would have to be amended by State Water Resources Control Board (SWRCB) – Division of Drinking Water (DDW) formerly CDPH. The Consent Decree calls for treatment at the rate of 9,000 gpm throughout the year, but the blending requirements interfere with this during low water demand months.

Along with nitrate and Cr6, other constituents of concern like 1,4-Dioxane, nitrosamines, and uranium may increase and negatively impact production from the plant. It may eventually be necessary to build additional treatment processes with funding expected to come from parties found to be responsible for the contamination.

4.4 Lake Street GAC

The Lake Street Granular Activated Carbon (GAC) Treatment Plant was constructed in 1992 to remove VOCs from City Wells 7 and 15 located on the BWP campus. The flow capacity is 2,000 gpm, resulting in a production capacity of 200 to 250 AF per month, allowing for carbon changes about every two months. The plant would normally be operated only during the warmer months of the year, due to seasonal demand and operational requirements for the BOU.

Lake Street GAC also has Cr6 concentrations above 10 ppb and no source of blending water. As a result, Lake Street GAC has remained shut down since March 2001 because of elevated Cr6 levels. No production from the GAC plant is included in the current Plan. Lake Street GAC was not designed to remove Cr6 and blending facilities are not available.

4.5 Stormwater Capture/Infiltration

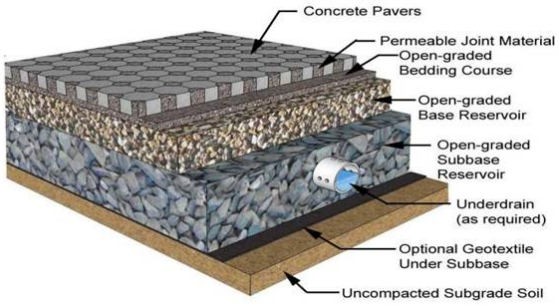
The City continues to evaluate stormwater mitigation methods with the concept of stormwater infiltration and recharge to promote low-impact development (LID). LID improves the effectiveness of groundwater recharge and extraction options by minimizing the loss of recharge areas. This requires certain construction practices that increase or maintain the infiltration capability of lands overlying groundwater basins. BWP completed a pilot percolation (Green Street) project on the Lake Street frontage of its campus.

The Green Street project captures and percolates stormwater from the public right of way. Capturing stormwater reduces run off and increases groundwater recharge. First flush contaminants are captured on site and do not flow to the Los Angeles River and Pacific Ocean. Citywide adoption of infiltration technology will ultimately result in more percolation to the aquifer.

The five stormwater mitigation methods the City implemented in the Green Street project are:

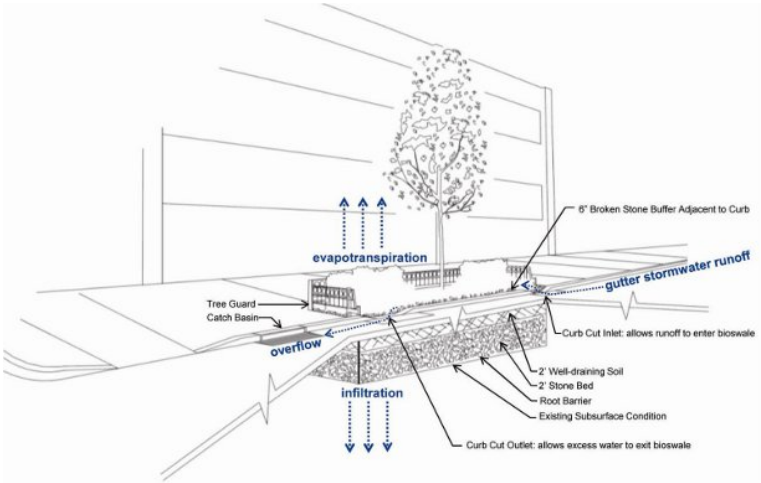
Permeable Pavers with Gravel Reservoir

Permeable pavers are structural units, such as concrete blocks, bricks, or reinforced plastic mats, with regularly inter-dispersed void areas used to create a load-bearing pavement surface. The void areas are filled with permeable materials (gravel, sand, or grass turf) to create a system that allows for the infiltration of stormwater. The use of permeable pavers results in a reduction of the effective impermeable area on a site.



Infiltration Planter Bump-Outs

A stormwater bump-out is a vegetated curb extension that protrudes into the street either mid-block or at an intersection, creating a new curb some distance from the existing curb. A bump-out is composed of a layer of stone that is topped with soil and plants. An inlet or curb-cut directs runoff into the bump-out structure where it can be stored, infiltrated, and taken up by the plants (evapotranspiration). Excess runoff is permitted to leave the system and flow to an existing inlet. The vegetation of the bump-out is low enough to allow for open site lines of traffic. Aside from managing stormwater, bump-outs also help with traffic calming, and when located at crosswalks, they provide a pedestrian safety benefit by reducing the street crossing distance.

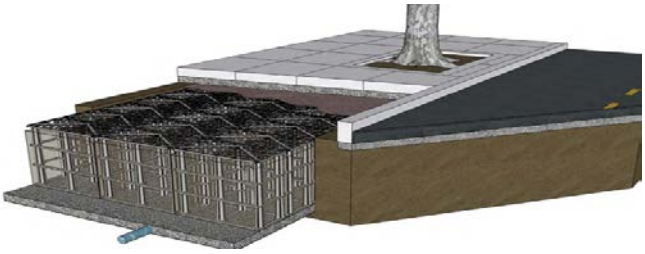


Filtration Planters at Open Space

A stormwater planter is a specialized planter installed into the sidewalk area that is designed to manage street and sidewalk runoff. It is normally rectangular, with four concrete sides providing structure and curbs for the planter. The planter is lined with a permeable fabric, filled with gravel or stone, and topped off with soil, plants, and, sometimes, trees. The top of the soil in the planter is lower in elevation than the sidewalk, allowing for runoff to flow into the planter through an inlet at street level. These planters manage stormwater by providing storage, infiltration, and evapotranspiration of runoff. Excess runoff is directed into an overflow pipe connected to the existing combined sewer pipe.

Silva Cell System

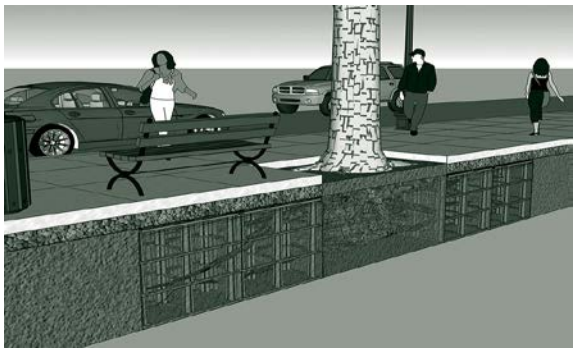
Silva Cells essentially function as underground scaffolding for trees. It creates an underground frame that can bear traffic loads and in addition offers freely rootable space that allows urban trees to grow into large and beautiful specimen by the catchment of excess rain or stormwater. It also creates large absorption capacity with uncompacted soil in the cell.



Kristar Tree Pod System

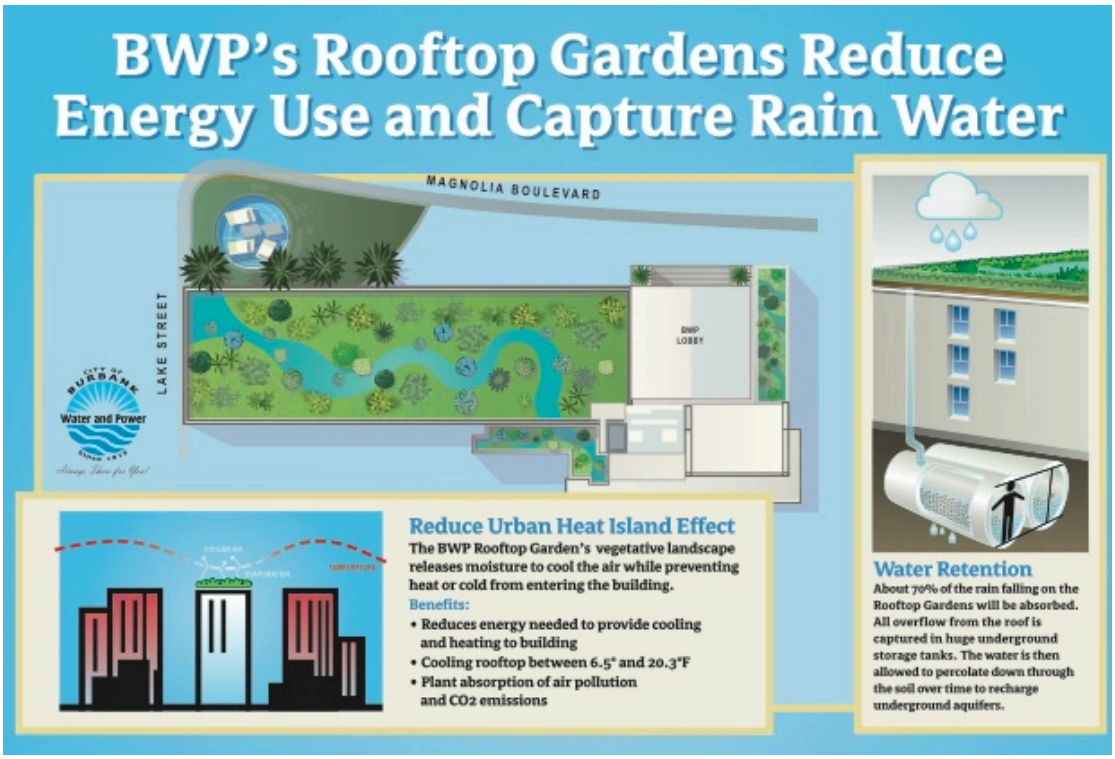
The Kristar Tree Pod is a biofiltration system consisting of conventional tree box filter and a pre-filtration chamber. The pre-filtration chamber separates and retains gross pollutants such as trash, debris and coarse sediments – pollutants known to reduce efficiency and increase maintenance frequency of

typical tree box filters. Collected gross pollutants are removed from the pre-filtration chamber through the maintenance access cover, without disturbing the biofiltration area.



These five stormwater capture systems work together to help BWP achieve the goal of a zero runoff campus where all stormwater falling on the campus is percolated back into the aquifer.

In 2011, BWP installed three green roofs on its Administration Building to help capture stormwater. A green roof is covered in part of whole with vegetation, typically drought tolerant plants. Green roofs are both esthetically pleasing and environmentally preferred. Underground storage tanks were installed to capture the green roof's overflow water during a rain event. The water from these underground tanks is then allowed to percolate through the soil.



Solar Panels were also constructed to serve a multitasking purpose: providing shade to parked cars, channeling rainwater to a filtration system, and providing power to the service center and warehouse.

The rainwater that lands on the solar panels is conveyed to massive underground water storage and percolation tanks. These 8-foot diameter underground storage tanks allow stormwater to percolate down through the soil over time. This process ultimately helps recharge the aquifer.

Besides the Rooftop Gardens and solar panels these underground tanks also captures storm water from Lake Street and the Centennial Courtyard. This creates a zero discharge to the streets during a storm and mitigates storm related discharges to the flood channels which ultimately lead to the Pacific Ocean.

4.6 Exchanges or Transfers

DWR requires water suppliers to describe the opportunities for exchanges or transfers of water on a short-term or long-term basis. Burbank is not currently planning any long-term exchanges or transfers of water. Burbank has two system interconnections with the City of Glendale. These have been used on several occasions to solve short-term operational problems, such as a need for extra water because an MWD connection or pump station is out of service. The policy has been to return the same amount of water, rather than buying and selling water. If MWD had to ration water during a drought, both cities would be affected. The interconnections would only help if one city had extra groundwater capacity to share.

As a member agency of the MWD, Burbank may contribute to the development of exchanges, transfers and water banking through its MWD water purchases. There are plans in the near future to build facilities to transfer potable water to LADWP. This will allow the BOU to operate at a higher capacity when demand is down and treating additional contaminated groundwater basin clean up.

The City of Glendale's and Burbank's recycled water distribution systems are interconnected at one location. Within the past five years there have been a few occasions where Glendale used Burbank's recycled water to accommodate its planned plant shutdowns. There are three other recycled water interconnections scheduled to connect with LADWP in the near future. Burbank will supply LADWP with recycled water and receive groundwater credits in return.

4.7 Desalinated Water

Burbank, located inland in the San Fernando Valley, has limited opportunity for desalination of ocean water. The groundwater is not brackish. To remove substances like chromium or nitrate, membrane processes like those often used for desalination may one day be used. However, disposal of the brine from such processes is more of a problem than for seaside locations which can send it to an ocean outfall.

As a member agency of the MWD, Burbank supports local water supply projects like the development of desalinated water supplies. Burbank is in favor of desalination projects, if they prove to meet standards of engineering and economic feasibility.

4.8 Future Water Projects

The following water supply-related projects are underway:

- Expanded water recycling (discussed in Section 5)
- Aggressive conservation measures (detailed in Section 6)
- North Hollywood Operable Unit (NHOU) wells treated at BOU (Lockheed-Martin is leading the effort to pipe nearby NHOU off-line wells to the BOU to receive VOC removal treatment)
- Indirect potable reuse (IPR)/direct potable reuse (DPR) feasibility study (as State Regulators wrestle with approval, Burbank's future water supply may be sustained by IPR/DPR technologies)

SECTION 5: WATER RECYCLING

5.1 Wastewater Collection and Treatment

Wastewater generated within the City is collected and conveyed by approximately 230 miles of pipelines ranging in diameter from 6" to 30", two pump stations, and 19 diversion manholes. The Los Angeles 48" North Outfall Sewer (NOS) line runs from west to east through the southern portion of the City.

Wastewater flows to the Burbank Water Reclamation Plant (BWRP) which currently treats 8.5 MGD with a design capacity of 12.5 MGD. The BWRP treatment system consists of the following:

- Flow equalization
- Coarse solids grinding
- Primary sedimentation
- Activated sludge biological treatment with nitrification and denitrification
- Secondary sedimentation with coagulation
- Single media deep bed gravity sand filtration
- Chlorination disinfection with sodium hypochlorite
- Chloramination (ammonia addition) for Recycled Water Use
- Dechlorination with sodium bisulfite (for discharge to surface water)

BWRP produces a disinfected tertiary effluent which meets discharge limitations contained in its National Pollutant Discharge Elimination System (NPDES) permit issued by the Los Angeles Regional Water Quality Control Board (RWQCB-LA). BWRP's effluent also meets the most stringent criteria for recycled water defined in the California Code of Regulations, Title 22, Division 4, Chapter 3 requirement as *Disinfected Tertiary Recycled Water* in that it is approved for all uses, including full body contact, with the exception of human consumption.

Up to 10,000 AF of recycled water per year is available for reuse. Recycled water produced at BWRP can be used in one of three ways:

- Flowed via gravity pipeline to the BWP campus
- Pumped into the recycled water distribution system
- Discharged to the Burbank Wester Channel adjacent to BWRP

Water discharged to the Burbank Western Channel flows to the LA River and eventually to the Pacific Ocean.

5.2 Current Recycled Water Use

The recycled water from the BWRP is used in one of three general categories within the City: power production, landscape irrigation, and evaporative cooling. Burbank's recycled water is approved for all uses including full body contact with the exception of human consumption.

Power Production

Recycled water was first used at BWP's power production facilities for cooling in 1967. Originally, all excess recycled water from BWRP not pumped into the recycled water system flowed to the BWP campus. Blowdown water from the cooling towers and excess recycled water was discharged to the Burbank Western Channel, which is adjacent to both the BWRP and the BWP campus.

In August 2005, Construction of the Magnolia Power Project (MPP), a 310 megawatt, natural gas-fired, combined cycle turbine power plant was completed and all recycled water discharges to the Burbank Western Channel were discontinued at the BWP campus. MPP uses recycled water exclusively for cooling and all other power plant uses, including high purity boiler feed. The average annual usage is 1,350 AF (1.2 MGD).

MPP recycles all its process and cooling water to extinction through its zero liquid discharge (ZLD) unit. The ZLD unit purifies cooling tower blowdown and other recaptured water for reuse as cooling tower makeup. The byproduct of the ZLD process is a salt cake that is dried and trucked to a landfill for disposal.

Three other power plants are located at the BWP campus: Lake 1, Olive 1, and Olive 2. Lake 1 is a simple cycle natural gas fired turbine which is used intermittently to meet peak demands. This plant has a small cooling tower and uses minimal amounts of recycled water for gas compressor and lubrication oil cooling. Demineralized recycled water is also used and air emissions control equipment.

The two Olive power plants are on long-term standby. Cooling and process water used in these plants is recycled water with the blowdown from their cooling towers being discharged to the sanitary sewer.

Landscape Irrigation

CalTrans began using recycled water in 1988 for landscape irrigation along the Golden State (I-5) Freeway. The City installed a pipeline under the Golden State Freeway (I-5) in 1992 to distribute recycled water to the east side of the freeway to new customers in the area of the Media City Center, a regional shopping center.

A significant expansion of the recycled water system to quadruple recycled water use began in 1994. This expansion was completed in 1997 and recycled water was used at the Burbank landfill, the DeBell Golf Course, John Muir Middle School, and McCambridge Park. The AMC theater complex and Burbank High School were eventually also connected to these pipelines. The project included upgrading BWRP's existing booster station plus two new booster stations, storage tanks, and 17,000 feet of pipeline.

Expansion of the distribution system continued with the joint support of the Redevelopment Agency, BWP, and infrastructure improvements at major redevelopment sites. These expansions extended the recycled water system to the Chandler Bikeway, the Empire Center, the Burbank (Bob Hope) Airport, and Robert Gross Park. Sales of recycled water for landscape irrigation were about 800 AFY in 2007.

BWP prepared a Recycled Water Master Plan (RWMP) in October 2007 that was subsequently approved by the BWP Board and City Council. The 2007 RWMP outlined a phased expansion of the recycled water system to ultimately increase the use of recycled water provided by BWP by over 900 AF per year. BWP's revised its RWMP in October 2010 to include additional projects which were determined to be economical.

This recycled water system expansion included construction of six major pipeline projects totaling over 20 miles in length and an upgrade of pump station PS-1. Construction of this expansion was completed in 2012. All major landscaped areas which could be economically served, including city parks and schools are now irrigated with recycled water. Figure 5-1 contains a map of the current recycled water system.

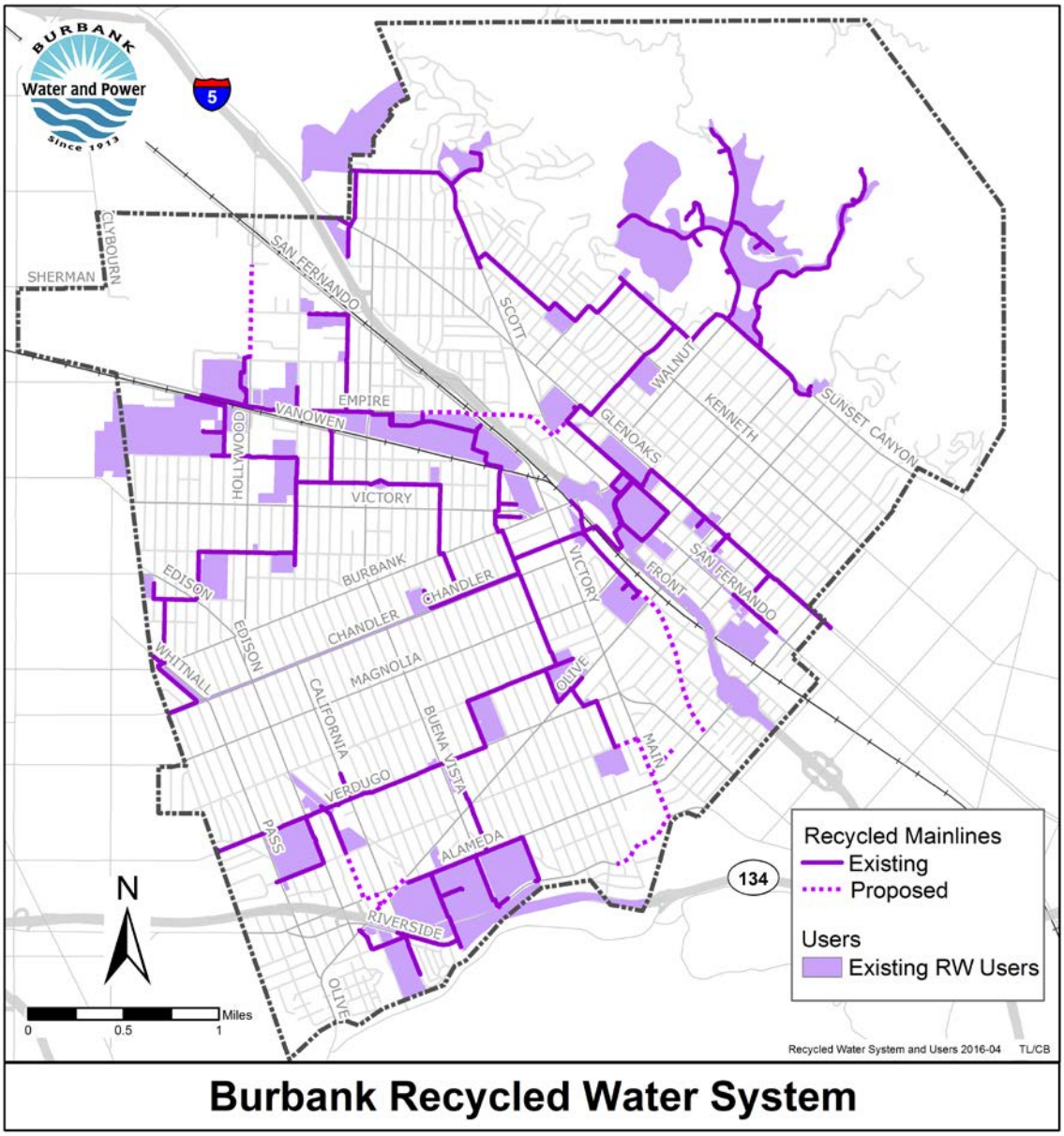


Figure 5-1: Existing Recycled Water System

Planning efforts by the LADWP have identified potential recycled water use sites within LA which cannot be economically served from LADWP's recycled water system. Several of these sites are close to the Burbank/LA border, including the LA portion of the Chandler Bikeway. BWP and LADWP have worked together to identify other locations within LA which are feasible to serve with recycled water provided by BWP.

Agreements defining the terms of the exchange were executed in January 2011. Construction of pipelines to serve these locations in LA is in progress. Deliveries of Burbank's recycled water to locations in LADWP's service area are expected to start by the end of 2016.

HVAC Cooling

Early in 2010, BWP identified a major opportunity for use of its recycled water in Heating, Ventilation, and Air Conditioning (HVAC) cooling towers of commercial buildings. The cooling tower serving BWP's administration building was converted to use recycled water in the summer of 2010. BWP has identified 22 cooling locations in Burbank which are feasible to serve with recycled water. These locations use over 450 AF of recycled water per year. Major customer service efforts have resulted in almost 75% of this use converted by the spring of 2016. These efforts will continue until all identified locations are converted.

Table 5-1 below contains an estimate of future recycled water use.

Table 5-1: Recycled Water Use in AF

Year	2015	2020	2025	2030	2035	2040
Landscape Irrigation	936	1,007	1,017	1,017	1,017	1,017
Golf Course Irrigation	222	230	230	230	230	230
Commercial Use - Cooling Towers	150	470	470	470	470	470
Industrial Use - Fotokem	0	20	30	30	30	30
Energy Production - BWP Power Plants	1,155	1,300	1,300	1,300	1,300	1,300
Deliveries to LADWP	0	300	2,000	2,000	2,000	2,000
TOTAL	2,463	3,327	5,047	5,047	5,047	5,047
Recycled Water Produced	8,786	10,000	10,000	10,000	10,000	10,000
Recycled Water Discharged	6,323	6,673	4,953	4,953	4,953	4,953

5.3 Recycled Water Policies

City Council and Department Managers have always maintained a positive outlook towards the use of recycled water. The use of recycled water has been a tremendous opportunity for the City of Burbank to do its part in conserving the scarce and very important State and local potable water supplies. The citizens and existing users have expressed positive feedback about the use of the recycled water system. Also public notification signs required by regulations provide a friendly message about its use.

The City has full-time staff to help existing users comply with regulatory requirements as well as to inform and encourage the development of new users. To encourage the use of recycled water, the City offers recycled water at approximately 85% of the corresponding potable water rate. The Rules and Regulations also contain other procedures to clarify what is required to receive recycled water service, which standardizes and thus facilitates recycled water use.

City Council expressed support for the addition of new required uses of recycled water where practical and appropriate when the 2007 RWMP was endorsed in October 2007. City Council approved a policy in December 2008 which mandated recycled water use under certain conditions. The Council policy authorized modifications to BWP's Rules and Regulations to require the use of recycled water where these conditions are met. The use of recycled water, when required, is a condition of potable water service.

It is the parcel owner's responsibility to perform all onsite retrofits necessary to use recycled water on the property. BWP completes all work up to the meter at no charge to the property owner. Conversion to recycled water is required when the recycled transmission main fronting the parcel is put in service. The policy has been critical in facilitating recycled water conversions of landowners unenthusiastic to recycled water use.

5.4 Recycled Water Fill Stations

On August 25, 2015, Burbank's City Council approved a Residential Recycled Water Fill Station Pilot Program. During the drought, one question BWP heard frequently from residents is "Why can't you provide my home with recycled water?" The costs to do so would have been astronomical, so BWP created an alternative approach to be responsive to this request. BWP's Water Division fabricated a community recycled water fill station. This enabled Burbank residents and businesses interested in obtaining recycled water to do so, at no cost. They were required to bring appropriate containers to the recycled water fill station and transport the recycled water to their property. Up to three hundred gallons of recycled water could be obtained per visit but residents were allowed to make multiple visits per day. Customers were also required to complete a training program on the safe use of recycled water and sign a form indicating their understanding of the following recycled water guidelines:

- Don't drink recycled water
- Don't use recycled water to wash hands or any other part of body

- Don't remove recycled water identification signs, tags or labels
- Don't cross-connect two dissimilar water systems (recycled to potable)
- Don't allow recycled water to contact drinking fountains or eating areas
- Don't allow recycled water to pond or puddle
- Don't allow recycled water to run off the use site property
- Don't pump recycled water into any on-site irrigation system
- Don't put hose bibbs on recycled water containers
- Don't use the same equipment on both recycled water and domestic water systems (for example, quick couplers, hoses, tools, etc.)

Additionally, BWP provided and applied "Recycled Water – Do Not Drink" stickers, to each container used to transport the water.

While this service represented only a drop in the bucket in potable water savings, it provided valuable publicity regarding BWP's recycled water efforts.

5.5 Potable Reuse

The City of Los Angeles, which owns the rights to the groundwater in the SFB, has shown interest in using recycled water for groundwater replenishment. LADWP will utilize advanced treatment that includes reverse osmosis, microfiltration, and advanced oxidation. This level of treatment will address water quality concerns for the health of the SFB. Burbank's excess recycled water may be used to supplement LADWP's recycled water supply for indirect potable reuse.

BWP is currently pursuing grant funding to study the feasibility of both indirect and direct potable reuse. This study will be used to evaluate options for the use of Burbank's excess recycled water. If either of these options becomes an economic alternative to purchasing MWD water, and regulations permit, BWP will seriously consider their implementation.

SECTION 6: WATER SUPPLY RELIABILITY AND WATER SHORTAGE CONTINGENCY PLAN

6.1 MWD Supply Reliability

Burbank depends heavily on MWD for its water supply since Burbank does not have the right to pump native groundwater in the SFB. The City of Los Angeles owns all naturally occurring groundwater as discussed in Section 4.2. Burbank maximizes local resources and minimizes the need to import water from other regions through aggressive use of recycled water, spreading and storing imported water when feasible, and promoting potable water conservation. These are detailed in Sections 5 and 7.

Burbank's location in MWD's distribution system allows it to be supplied by two separate MWD treatment plants, Weymouth and Jensen. The Weymouth plant can treat water from the CRA and the SWP. The Jensen plant can only treat water from the SWP. MWD's multiple supplies allow operational flexibility in case of a treatment plant shutdown or temporary problem within the distribution system. The City can also purchase untreated MWD water for groundwater replenishment. Untreated water delivered through the city's MWD B-6 connection can be spread at Pacoima or Lopez spreading grounds in order to add to its stored groundwater credits.

MWD discusses regional water supply reliability in its 2015 UWMP. The MWD UWMP uses information from the Integrated Water Resources Plan (IWRP), the 1999 Water Surplus and Drought Management (WSDM) Plan, and other MWD planning studies. To develop average year supply and demand estimates, MWD used the historic hydrology for 1922 through 2012. For dry year planning, they used the historic one-year (1977) and three-years (1990-1992) dry periods on the SWP because it is MWD's largest and most variable supply.

MWD strives for a "diverse water portfolio" that allows it to meet demands even in years when its primary supplies would not be enough. Part of MWD's 2015 UWMP is to have water storage capacity to draw on when supplies are short. MWD has management options in place to handle variations in supply and demand. Their goal is to meet 100% of full-service retail demands under foreseeable hydrologic conditions.

Ultimately, if MWD has a sufficient water supply, so does Burbank. In the 2015 IWRP update, MWD describes unprecedented challenges on both the SWP and the CRA imported water supplies. They emphasize that significant action is needed to meet the IWRP goals for reliability. In particular, they are planning on the implementation of the California Water Fix to improve the reliability of water deliveries on the SWP.

MWD's 2015 UWMP includes water quality information regarding CRA and SWP supplies. Salinity is the main concern for the CRA supply. MWD is investigating desalination as a contingency plan for the CRA supply to combat its salinity. Treatment plant improvements are expensive and desalination leads to some water loss.

For the SWP supply the main water quality concern is high levels of total organic carbon (TOC) and bromide. Disinfection byproducts (DBPs) form when source water containing TOC and bromide is treated with disinfectants such as chlorine or ozone. Studies have shown a link between certain cancers and DBP exposure. Ozonation reduces trihalomethane and haloacetic acid formation (both considered DBPs) but produces bromate which is regulated at 10 ppb. MWD has upgraded its pre-treatment process with ozonation capabilities at four of its five treatment plants and monitors bromate to keep the treated water at safe levels. However, MWD does not anticipate any reductions in water supply availability from SWP and CRA supplies due to water quality concerns over the study period.

6.2 Groundwater Supply Reliability

Groundwater helps Burbank's overall supply reliability by providing a reserve during emergencies or droughts. The capacity and reliability of Burbank's groundwater supply requires consideration of many issues including:

- Water rights
- Aquifer storage capacity
- Physical well and pump capacity
- Treatment capacity
- Water quality issues

Los Angeles owns the native groundwater rights to the SFB as detailed in the Judgment described in Section 4.2. The Judgment gives Burbank the right to store water in the aquifer under the administration of the ULARA Watermaster.

Burbank can purchase MWD water for groundwater replenishment through spreading in order to add to its stored water credits. To maintain and optimize groundwater pumping, BWP needs to acquire about 7,500 AF of groundwater per year through replenishment or a combination of replenishment and "physical solution" purchases.

Unavailable replenishment water during a long drought could limit the City's ability to add to its groundwater "bank". However, the City plans to keep a reserve of 10,000 AF in groundwater credits. This would allow normal extractions to continue for about three years without replenishment, assuming the purchase of 4,200 AFY of physical solution water annually from LADWP (see section 4.2). After that, assuming the groundwater basin still held enough water; BWP would have to negotiate the purchase of additional groundwater from LADWP.

Groundwater VOC contamination underlying Burbank has necessitated the construction of two treatment plants for VOC removal, the BOU and Lake Street Granular Activated Carbon (GAC) plants. Burbank's BOU well capacity (12,000 gpm) is greater than its treatment capacity (9,000 gpm). Well pumping redundancy within BOU's well field and rotating their use keeps operations flexible and reliable. Groundwater from the BOU is pumped into Burbank's distribution system via the Valley

Pumping Plant (VPP). The Lake Street GAC is not currently used since it has no blending capacity to meet 80% of the Cr6 MCL limit (80% of 10 ppb = 8 ppb).

All of the City's production wells have varying degrees of VOC contamination and a shutdown of both treatment plants would create a complete loss of the groundwater supply. Elevated nitrate levels in the groundwater make it necessary to blend with MWD water to meet drinking water standards. The VPP was designed to allow blending water from the BOU treatment plant and a MWD connection to reduce nitrate levels. New regulations for lower nitrate levels would require additional and costly treatment processes.

Recent regulations for Cr6 threatened to affect the BOU's supply but blending with MWD water enables the City to meet the regulatory requirement for Cr6 at 8 ppb. If levels of either contaminant increased in the future then groundwater reliability could be affected until costly treatment was constructed. Other emerging constituents like 1,4-Dioxane, nitrosamines, perchlorate, and uranium that cannot be removed by Burbank's existing treatment plants could affect groundwater reliability and may also need costly treatment.

Redundant pumps at the VPP boost treated groundwater to blend with MWD water before entering into the distribution system. This supply can be maintained in case of failure of one of the pumps. Water stored in the elevated tanks and reservoirs could supply the City by gravity in the event of a short-term power outage happened. An electric power outage would interrupt the groundwater supply as well as treatment plant operations. However, Burbank has excellent power supply reliability including local generation making a long-term power outage extremely unlikely.

6.3 Recycled Water Supply Reliability

All of Burbank's recycled water is supplied by BWRP. The BWRP is managed to be highly reliable but contingencies for recycled water outages must be considered. The existing recycled water distribution system includes potable water makeup facilities at the BWRP, Stough Tank, and the Golf Course Tank. A recycled water system interconnect with the City of Glendale was completed in 2010 which results in a backup recycled water supply from the LA-Glendale Water Reclamation Plant. MPP has the ability to supplement or replace the recycled water supply with water from two City wells which normally feed the Lake Street GAC.

Increased salt and nutrient loading is a growing concern to the San Fernando Basin. The State Water Resource Control Board is mandating each basin to adopt a Salt and Nutrient Management Plan (SNMP) by 2016. The City is participating in the SNMP process through the ULARA Watermaster. Recycled water usually has higher Total Dissolved Solids (TDS) and chloride content than potable water which may affect groundwater as it infiltrates. Recent groundwater data suggest TDS and Chloride loading from irrigation with recycled water have not negatively affected the groundwater in the SFB but future salt and nutrient regulations may limit recycled water's availability and use.

6.4 Supply and Demand Comparison

DWR requires agencies to provide a comparison of projected water supply and demand for the next 20 years, through 2035. This plan has been extended to 25 years, through 2040 to be useful through the next five years for Water Supply Assessments (SB 610) and Written Verifications of Water Supply (SB 221), which also require a 20-year planning horizon from the year they are performed.

The future water demands for the City and the entire region have been estimated by MWD using its new and improved model, the MWD Econometric Demand Model, developed by the Brattle Group. This model uses forecast data from Southern California Association of Governments (SCAG) for variables including population, housing units, and employment. Although Burbank is using lower demand projections which take into account the reductions to meet 20x2020 targets, these MWD projections provide the basis for dry-year reliability planning. Table 6-1 contains the years used by MWD for their reliability analysis.

Table 6-1: MWD's Basis of Water Year Data

Water Year Type	Base Year(s)
Average Water Year	1922-2012
Single-Dry Water Year	1977
Multiple-Dry Water Years	1990-1992

MWD estimated Burbank's 2020 demand to be 28,340 AF for an average year and a multiple dry year demand of 28,267 AFY. For this projection, MWD did not count future conservation from additional agency efforts after 2015. Region-wide, MWD does have targets for additional conservation and/or recycling. Therefore, MWD actually expects Burbank's water use to be less than the estimates. Burbank's demand projections in this Plan include more conservation than MWD's projections.

MWD and Burbank predict similar demands for normal and dry years. Generally, dry weather, especially hot, dry weather, causes an increase in water demand, mostly for landscape irrigation. But conservation practices during past droughts have been sufficient enough to actually lower demands. Burbank achieved a 10% reduction in water use during the 1990/91 drought, a 20% reduction for the 2008-10 drought, and a 24% reduction in 2015, compared to use in 2013, saving over 1 billion gallons of water.

BWP is required to estimate minimum water supply during the next three years based on the driest three years on record. Supply and demand comparisons for a single dry year and for multiple dry years for each of the planning years must also be evaluated. MWD's plan provides normal and dry-year estimates for each period. Tables 6-2 through 6-5 apply percentages based on MWD's analysis to Burbank's normal-year demand estimates. Since MWD expects to meet demands, and since groundwater and recycled water should be reliable in dry years, the supplies meet the demands.

Table 6-2: Minimum Supply for Next Three Years

Multiple Dry Water Year Supply (AF)		
2016	2017	2018
28,448	28,448	28,448

Table 6-3: Supply and Demand—Normal Year

	2020	2025	2030	2035	2040
Supply Totals (AF)	28,521	28,130	27,858	27,440	27,250
Demand Totals (AF)	28,521	28,130	27,858	27,440	27,250
Difference (AF)	0	0	0	0	0

MWD projects 100% reliability for full-service demands through the year 2040 based on its 2015 UWMP. As a result, Burbank does not expect critical shortages during the 25-year planning period. The City will continue to rely on MWD for water either for direct use or for groundwater replenishment.

Table 6-4: Supply and Demand—Single Dry Year

	2020	2025	2030	2035	2040
Supply Totals (AF)	28,473	28,082	27,811	27,394	27,204
Demand Totals (AF)	28,473	28,082	27,811	27,394	27,204
Difference (AF)	0	0	0	0	0

Table 6-5: Supply and Demand—Multiple Dry Year Events

		2020	2025	2030	2035	2040
Multiple-Dry Year 1st, 2nd, & 3rd Year Supply	Supply Totals (AF)	28,448	28,470	28,183	27,741	27,531
	Demand Totals (AF)	28,448	28,470	28,183	27,741	27,531
	Difference (AF)	0	0	0	0	0

Burbank cooperates with MWD's regional water supply planning. MWD believes that all member agencies will continue with their demand management efforts since MWD's water demand projections include significant increases in conservation throughout the planning period.

An important component of MWD's contingency plan for responding to water shortages is the Water Supply Allocation Plan (WSAP) which MWD's Board of Directors approved in February 2008. It is based on a guiding principle developed out of the Water Surplus and Drought Management (WSDM) Plan for allocating shortages across MWD's service area. The WSAP formula uses different adjustments and credits to balance impacts of water shortage at the retail level, where local supplies can vary dramatically, and provide equity on the wholesale level among member agencies. It also takes into

account the following: growth in demand, local investments, change in local supply conditions, the reduction in potable water demand from recycled water, and the implementation of water conservation programs

6.5 Drought Experience

Burbank has not experienced many water supply deficiency problems or water emergencies in the past. During the 1976-77 drought there was no shortage of imported water but customers were encouraged to conserve water. This resulted in a 16% reduction in water usage which helped mitigate the drought effects throughout the City.

In 1991, due to the prolonged drought of 1987-92, the City implemented an Incremental Water Conservation Ordinance. There had already been a call for voluntary conservation efforts to achieve a 10% reduction in water use. The ordinance included a mandatory 20% conservation requirement, compared to base calendar year 1989. This resulted in financial disincentives (Drought Surcharge) to users who failed to conserve the required amount. There was also a Base Rate Adjustment of 15% from April 1, 1991 through March 31, 1992. By April 1, 1992, the water supply outlook had improved as well as water sales reduced 25%, and Burbank went back to a voluntary conservation program. Temperature and rainfall did affect the demand for water with a cool summer and rainy March in 1991. In addition, Lockheed had vacated most of its manufacturing plant since the base year of 1989, accounting for some of the reduction in water use.

In the years 2008-10, California water supplies saw low levels in major reservoirs and on the Colorado River system. Stricter limits on Delta water exports were enacted due to ecological issues. MWD implemented water supply allocation, which had not been expected during the previous UWMP update cycle in 2005. With SBx7-7, California passed important new legislation calling for 20% reductions in per-capita urban water use by 2020 (20x2020). Burbank took action by adopting a Sustainable Water Use Ordinance and other actions which are described in more detail in Section 6.7 and other parts of this UWMP. In September 2009 the City entered into partial Stage II requirements which limit home watering to three days per week. Customer response was excellent and in 2010 Burbank met its 20% reduction.

When the most recent drought period started in 2012 and progressed into 2014 Governor Edmund G. Brown Jr. issued a drought emergency proclamation calling for Californians to reduce their water use by 20 percent and for water agencies to implement water shortage plans. Burbank has always implemented Stage I of its Sustainable Water Use Ordinance which includes prudent water saving actions, such as not watering on rainy days or while the sun is out, not hosing down driveways, patios and other hardscape surfaces, and repairing plumbing and irrigation leaks promptly.

On July 22, 2014, Burbank's City Council adopted a Resolution to implement Stage II full requirements of the Sustainable Water Use Ordinance. This was in response to the July 15, 2014 California State Water Board emergency regulations requiring urban water suppliers, such as the City of Burbank, to implement

by August 1, 2014 their Water Shortage Contingency Plans at a level that triggered mandatory restrictions on outdoor water use or be directed to limit outdoor water use to two days per week.

California's drought worsened through 2014/2015 and on April 1, 2015 Governor Brown issued an Executive Order (B-29-15) mandating a 25% statewide reduction in potable urban water use through February 2016 which included provisions to fine water agencies by up to $10,000/day for not meeting the water use reduction goals established by the SWRCB for each Water Agency.

On April 14, 2015, the MWD Board voted to implement the Water Supply Allocation Plan at a Stage III or 15% reduction in retail supplies. Water agencies exceeding a draw on MWD supplies above the Agency allocation would pay substantial penalties for excess water.

On April 18, 2015, the SWRCB issued conservation requirements for water agencies. The Governor's Executive Order directed the SWRCB to impose restrictions on water agencies to achieve the statewide 25% reduction in potable urban water use through February 2016 as measured against 2013 monthly use. Because of Burbank's historical conservation efforts the reduction was established at 24%.

On April 21, 2015, a Drought Update and Potential Water Conservation Measures Report was presented to City Council and recommending three actions:

1. Scheduling a Public Hearing to implement Stage III of the Sustainable Water Use Ordinance
2. Establish fines for large commercial, industrial and institutional customers not compliant with recycled water conversions
3. Immediately begin issuing fines provided for in the Sustainable Water Use Ordinance to those ignoring repeated outreach related to prohibited water waste practices

An Emergency Public Hearing was held in the City Council chambers on May 14, 2015 which resulted in a 5-0 approval of implementing Stage III of the Sustainable Water Use Ordinance and to begin issuance of water waste fines.

Stage III of Burbank's Sustainable Water Use Ordinance includes all prohibitions contained in Stages I and II plus these four additional requirements:

1. Landscape irrigation during April through October is limited to no more than two days per week, on Tuesdays and Saturdays. One day per week landscape watering on Saturdays, as provided for in Stage II of the Ordinance, remains unchanged during Stage III for the cooler months of November through March.
2. Do not use outdoor evaporative cooling devices (for example, misters).
3. The prohibition on watering outdoor landscaped areas between the hours of 9:00 a.m. to 6:00 p.m. extends to include attended hand-watering.
4. Cover all swimming pools, wading pools, or spas when not in use with acceptable protection designed to decrease water evaporation.

BWP estimated a 24% total reduction by implementing the following:

- Sustainable Water Use Ordinance Stage III Restrictions an 11% reduction
- Recycled Water Conversion Projects a 3% reduction
- Enforcement of Water Waste Restrictions already in place an 8% reduction
- Indoor Water Waste Behavioral Improvements a 2% reduction

As a result of these efforts, Burbank met the 24% reduction from 2013 usage each month in 2015 and saved over 1 Billion gallons of water.

6.6 Water Shortage Contingency Planning

DWR requires agencies to plan for water shortages which can be categorized by two major types: catastrophe and drought. The two types should be considered separately although some responses are common to both. MWD, along with its member agencies, developed actions that would be implemented in response to water supply shortages. These actions and their triggers are described in the WSDM Plan. This plan provides guidance to minimize the probability of severe shortages and reduce the possibility of extreme shortages and shortage allocations. MWD also developed the WSAP which provides a standardized methodology for allocating supplies during times of shortage.

A water shortage can result from a catastrophe like an earthquake, a major power outage, or a water supply source problem, i.e. major breakdown or a water quality disruption. Catastrophes like these occur with little or no warning but typically a partial restoration of supply can be expected within days or at most a few weeks. MWD developed a catastrophic supply interruption plan which contains the Emergency Storage Requirements (ESR).

The ESR is based on the three major aqueducts (SWP, CRA, and Los Angeles) being out of service for six months after a major earthquake. Diamond Valley Lake and other Southern California reservoirs and groundwater basins provide emergency storage. After such a disaster, MWD's emergency plan implements a mandatory 25% cutback in firm supplies to member agencies. Extraordinary conservation would be required to stay within the reduced supply in either of the above extreme cases.

Burbank has a formal disaster preparedness program. Every City employee is considered a disaster services worker. Training and drills are held regularly. When an emergency occurs, the Emergency Operations Center can be activated. This involves personnel from all City departments and it operates according to the formal SEMS (Standardized Emergency Management System) procedures. There is a formal process for checking the water system for problems.

Burbank could manage a short-term deficiency or emergency situations by encouraging voluntary water conservation and also with the following actions:

- Increasing local groundwater pumping
- Purchasing additional water from the MWD to the extent available
- Using emergency interconnections to adjacent water agencies

If Burbank experiences a major power failure, but MWD is still producing water, Burbank can receive water to Zones 1 and 2. Portable diesel pumps are available to move water to higher zones if necessary. If all the City's water supplies were interrupted, stored water in local reservoirs would last up to three days at average use. Immediate curtailment of non-essential uses, i.e. landscaping, could make supplies last much longer. In the case of a major local earthquake, stored water could be lost due to many broken pipelines.

Since Burbank has two groundwater treatment plants, as well as five MWD connections, there is some flexibility in emergency operations. If a problem developed with one of Burbank's plants, MWD could supply additional water from the five connections. If MWD supply had to be reduced, then treated groundwater could supplement the MWD supply. Blending MWD water with Valley/BOU water is necessary to maintain production due to groundwater nitrate levels but an increased BOU/MWD blending ratio could suffice.

There are presently two emergency interconnections with the City of Glendale. These emergency interconnections have proven to be effective in providing a short-term supplemental supply but Glendale relies on MWD water under the same conditions as Burbank. If no emergency connection is possible, mandatory rationing could be imposed by stages which are outlined below in Section 6.7.

Historically, damage to Burbank's water system from the 1971 Sylmar and 1994 Northridge earthquakes was limited. However, future earthquakes might cause greater damage. The strictest emergency water use restrictions would be put in place, such as prohibiting landscape irrigation, car washing, and reducing water usage to only public health needs. Arrangements could be made to supply drinking water by truck, or depending on system conditions, at distribution points.

Besides catastrophes, a water shortage can result from drought and these drought scenarios are discussed historically in Section 6.5 and sustainably in Section 6.7. Burbank does not expect severe shortages due to drought during the 25-year plan period, based on MWD's UWMP. The WSDM Plan describes the most severe shortage stage 7 or "extreme shortage", which would require allocation of water supplies to full-service customers.

Burbank does have a preferential right to purchase about 0.92% of the available MWD water supply under Section 135 of the Metropolitan Water District Act. However, Burbank supported MWD's WSAP, which did not implement preferential rights, because of the insurance or back-up provision against the loss of local supply, where Burbank has over half of its supply. MWD's WSAP is designed to avoid the extreme shortage stage for some agencies if preferential rights are implemented in lieu of a broader regional allocation.

When advised of a dry water supply year, the City would call for increased voluntary water conservation efforts. In the event of MWD allocation, Burbank would implement water use restrictions in stages contained in the Sustainable Water Use Ordinance as necessary to meet the required water use targets. If DWR or MWD required severe rationing due to extreme drought, the City would implement water rationing in addition to the mandated water use reductions.

6.7 Sustainable Water Use Ordinance

Burbank adopted the Sustainable Water Use Ordinance in June 2008. Stage III is currently in effect and helping to meet the Governor's mandatory conservation target as described in Section 6-5. The ordinance defines six stages covering the range from normal water supply to extreme shortages. It provides a basis for achieving water demand reductions which may be required because of emergency or drought conditions. Stage I, consisting of 13 sustainable water use measures, is always in effect. The other five stages can be activated by the City Council in times of water shortage. Some of the measures contained in the Sustainable Water Use Ordinance are shown in Table 6-6 below.

Table 6-6: Measures Contained in the Sustainable Water Use Ordinance

Water Use Measures	Stage where Implemented
• Thirteen sustainable water use measures	I
• Landscape watering limited to 15 minutes/day o three days per week, April – October o one day per week, November - March	II
• Landscape watering limited to 15 minutes/day, two days per week, April – October • Use of outdoor cooling devices (misters) prohibited • Hand watering also prohibited between 9AM and 6 PM • Use of pool and spa covers required	III
• Landscape watering limited to one day per week	IV
• Watering limited to deep irrigation of trees and shrubs, 20 min, 2 days per month • No new or upgraded potable water services permitted, except R-1 and R-2, unless building permit already issued	V
• No landscape watering permitted	VI

Although shortage percentages are not linked to the ordinance, Stage VI bans all landscape watering with potable water. This could provide the 50% reduction required by the Act. Also, the Water Division would defer main and fire hydrant flushing and reservoir drainage for maintenance. It is likely that a water supply emergency would be declared by the time the maximum reduction was called into effect.

The procedures for recording daily production and monthly metered sales to determine actual reductions in water use are already in place. Regular comparisons to base years and to the previous fiscal year are made every month for metered sales. During a drought, the existing data would be utilized to compare water use to pre-drought conditions. Unaccounted-for water would also be closely watched. Information would be made available to decision-makers as needed for the ongoing drought response.

There are many fixed costs in operating a water system and the overall revenue would be reduced below budgeted levels by the extraordinary conservation measures. Deferment of capital spending would be considered to further offset the loss of water sales revenues. Financial reserves would be drawn on and a rate adjustment could be requested if necessary.

Enforcement of the mandatory restrictions defined in the Sustainable Water Use Ordinance is through the issuance of an administrative citation. A notification process is used to alert citizens of reported water waste so corrections can be made. At least two notifications are made to allow citizens the opportunity to correct reported water waste incidents. Continued violation of the Sustainable Water Use Ordinance after receiving notifications may result in the issuance of an Administrative Citation, per section 1-1-108.1 of Title 1 of the Burbank Municipal Code. An Administrative Citation allows for fines of $100 for the first violation, $200 for the second violation, and $500 for every violation thereafter.

SECTION 7: DEMAND MANAGEMENT MEASURES

7.1 Burbank's local water conservation portfolio structure and ordinances

Burbank moved aggressively forward in creating a sustainable water supply for the future. The City's conservation efforts in response to the recent droughts are described in Sections 6.5 through 6.7. Within this last decade Burbank has realized 45% water savings. In 2005, the gallons per capita daily usage was 184 as compared to 127 gpcd in 2015. Burbank hopes to keep the gpcd as low as possible after the drought restrictions are lifted. The following sections contain a description of some of the major tools Burbank used to realize its water savings.

Sustainable Water Use Ordinance

The City Council enacted the Sustainable Water Use Ordinance in 2008 which prohibits the wasteful use of potable water. The Ordinance is comprehensive, including prohibitions on landscape water overspray, prompt leak repair, and that restaurants only serve water by request. Burbank's Sustainable Water Use Ordinance provides a tiered response of water use restrictions, allowing the City a nimble mechanism by which to respond to water supply shortages. The provision of penalties for residents or businesses not acting in accordance with the requirements is built into the Ordinance. City Council enacted Stage III of the Ordinance in 2015 to limit landscape watering to two days per week in the summer and one day per week in the winter.

Retrofit Upon Resale Ordinance

This Ordinance, adopted in July 2010, requires that properties resold in Burbank must certify by both seller and buyer that water-using fixtures, including toilets, showerheads, urinals, and faucet aerators meet current California Plumbing Code standards. While initially strongly opposed by the Burbank Association of Realtors, the requirements have not proved to be problematic. In fact, staff has heard several positive remarks from both realtors and escrow agents, thanking the City for not imposing certification fees and for making the compliance process straight-forward and easy to understand. Due to the robust Burbank housing market, this program ensures about 5 MG of water savings annually.

Conservation Rate Structure

A tiered water rate, adopted in 2009 for single-family residential water users, increases the cost of potable water as usage increases. The first tier, up to 15 hundred cubic feet (HCF) per month, is generally enough for most families to use for domestic and irrigation purposes. The cost of water then increases up to 30 HCF, and then again for any usage beyond 30 HCF per month. The tiered rate for single-family residential customers sends a price signal that discretionary water use is more costly.

Seasonal water rates were also adopted for multi-family residential, commercial and industrial services to encourage conservation during warmer months of the year. In addition, these two sectors are required to certify that indoor plumbing fixtures meet high efficiency levels or they will be assessed a 25% surcharge during the first year and 50% thereafter until the requirements are met. These penalty fees will be used solely to support water conservation programs in Burbank.

Water Public Benefits Fund

In 2009, the City of Burbank adopted a policy that annually commits 2% of water sales to fund water conservation in the City. This policy is modeled after the Public Goods Charge mandated by the State of California on electric utilities to fund energy efficiency, renewable energy, and research and development. The 2% funding commitment provides a foundation that allows water efficiency programs to have a broader scope as well as a longer time horizon.

Community Demonstration Garden Grants

Five Community Demonstration Garden grants of up to $15,000 each have been awarded to non-profit organizations and schools to demonstrate water efficient landscaping. The host organizations are the Burbank Family YMCA, Burbank Adult School, Burbank Temple Emanu El, the Burbank Housing Corporation, and Providence St. Joseph's Medical Center. Demonstration gardens are supported with interpretive signage and online interactive software to provide detailed information about each garden and practical landscape advice.

7.2 Burbank's Customer Water Conservation Programs

Home Improvement Program

There are a wide variety of water efficiency rebates, programs and services available to Burbank residents and businesses. Many of these programs are very similar to programs offered by other municipal utilities. However, Burbank has an additional service, the Burbank Home Improvement Program, which offers installed water and electric conservation services and upgrades at no cost to residents. This program far exceeds what other agencies offer, especially regarding water use both inside of the home and outdoors. The free water upgrades and services of the Burbank Home Improvement Program include:

- Sprinkler controller programming to meet Burbank's Sustainable Water Use Ordinance
- Sprinkler head adjustments to prevent overspray
- Toilet leak test and repair
- Installation of low flow showerheads and faucet aerators

The program services about 1,000 homes per year, delivering an estimated water savings of over 20 MG. These water savings estimates were based on factors contained the in American Water Works Association Research Foundation (AWWARF) Residential End Uses of Water study. This award-winning program is exceptional and we hope that it will serve as a model for others to adopt.

Go Native! Turf Removal Program

With the assistance of the Metropolitan Water District, BWP offers a $3 per square foot rebate to residential customers who remove high water-consuming lawns and replace them with relatively low water demand California Friendly landscapes or synthetic turf. Over the last three years, more than 500 homes have participated in this program, which will save nearly 30 MG annually. Specifically, BWP relies on MWD's estimate of 43.8 gallons per square foot (gpsf) converted annually.

Home Water Reports Program

In April 2015, at the peak of the four year statewide drought, BWP began providing Home Water Reports to 15,000 residential single family water customers. The Home Water Reports contain information on bi-monthly water use, a comparison with similarly sized homes, and program promotional information and tips to reduce water use and monthly bills. A group of 3,600 single family customers that do not receive the reports comprise the control group against which BWP will measure the success of the program.

The program also provides online access to the reports for customers, which includes hourly, daily and weekly water use so that customers can work to reduce their usage before receiving their next bill. In addition, the online component contains a water conservation tip library and a leak detection module so that customers will know within one to two days when a leak is occurring and can take immediate steps to fix it. Through this new service, BWP is estimating a five percent reduction in water usage, or more than 100 MG annually, based on similar initiatives implemented by the East Bay Municipal Utility District in Oakland and the Irvine Ranch Water District.

Water Leak Detection Program

Through a review of hourly consumption data, similar to the Home Water Reports program, provided by advanced meters, staff reports to customers about possible water leaks. As customers repair these leaks, water savings are tracked. BWP saves customers about 7 MG per year through these efforts.

Free Water-Saving Fixture Program

For the past 20 years, BWP has been providing free water-saving devices to Burbank residents and businesses including faucet aerators and low-flow showerheads. At least 25,000 low-flow showerheads and 50,000 water efficient faucet aerators have been distributed since 1989. For this fiscal year alone, water savings from faucet aerators and low-flow showerheads are estimated at nearly 5 MG.

High Efficiency Clothes Washer Rebate Program

BWP offers rebates to residential customers who purchase high efficiency washing machines. Approximately 500 rebates are issued annually to Burbank residents purchasing high efficiency washing machines. These machines reduce water usage by 50 percent and are expected to top over 1.1 MG annually. BWP also offers rebates for the purchase of ENERGY STAR dishwashers.

LivingWise Program

For years, BWP has partnered with the Burbank Unified School District (BUSD) to provide sixth grade students in Burbank a LivingWise home retrofit kit. These kits contain water and energy saving devices that teach students the importance of water and energy conservation through a series of in-home and classroom activities. The students and their parents install these devices in their home and are rewarded with immediate and lasting savings. More than 1,100 students participate annually, achieving savings of over 6 MG per year, in addition to 60,000 kilowatt-hours per year.

Public Information Programs

BWP provides extensive water conservation and efficiency information through workshops and BWP's native plant landscaping classes. Information is also distributed through advertising, public service announcements, newsletters, and community events, as described in further detail below.

7.3 Other Burbank Conservation Efforts

BWP prides itself with many communications outlets to help spread the sustainability issues forward. In response to changing and challenging environmental issues, the BWP staff has significantly ramped up customer programs and customer communications over the past decade. BWP staff makes use of a variety of media, both active and passive, to engage and inform individuals and organizations about programs and services available to them. BWP hopes that these communication efforts will involve the community to preserve resources with heightened attention on sustainability. Current communication vehicles used by BWP staff are described below:

- BWP's produced Newsletter, "Currents" — a twelve page quarterly newsletter mailed to all Burbank addresses covering a wide range of topics
- Utility Bill Newsletter — a City newsletter with BWP items prominently featured is mailed to each BWP account holder with their utility bill
- BWP Sponsored Events — free workshops on California friendly landscaping are offered to Burbank residents
- City Events with BWP staff present — ongoing presence at City events to disseminate information and respond to questions
- Burbank Chamber of Commerce Events and Advertising — attendance at monthly Chamber luncheons with opportunity to speak briefly to business community on water and power issues; monthly program advertising in the Chamber newsletter
- Personalized Customer Communications — Letters and/or phone calls are made to customers related to specific issues
- Paid Advertising — annual full cover wrap in Burbank's newspaper, The Burbank Leader, special July 4th advertising pull-out for the Starlight Bowl concert season; Annual Project Share advertising in Burbank Leader; Smart Kart advertising space on grocery store shopping carts
- Event Sponsorship — BWP supports several community organizations and events, receiving advertising as part of the sponsorship
- BWP Website — BWP's website has about 50,000 unique visitors each month, highlighting BWP programs and issues important to the industry and community
- Twitter — BWP created "BurbankH2OPower" Twitter account which has over 1,600 followers
- BWP Guest Speakers — Presentations to organizations as requested
- Key Accounts — BWP staff members act in part as Key Account representatives meeting face-to-face three times a year with Burbank's 40 largest energy and water users
- Muzak On-hold Messaging — Customers receive BWP messages while on hold for a Customer Service Representative and messages are reviewed quarterly

- Burbank Unified School District and Student Outreach — BWP has student sustainability programs in place that are run on an annual basis and also participating in ad hoc programs
- Grant and Award Opportunities — BWP actively seeks appropriate grant opportunities
- Press Releases — BWP regularly sends out Press Releases highlighting grants awarded, programs, and significant accomplishments

BWP has a multitude of brochures and pamphlets free to anyone who walks through the doors, or can be downloaded directly from the website. These brochures and publications can help customers save energy, water, money and receive rebates. Details of the programs and how to take advantage of them are available at BurbankWaterAndPower.com:

- Water Tips
- Energy Cost Calculator
- Energy Tips
- Fix Leaks
- Home Cooling
- Look for the Label
- Caulking Your Home

7.4 CUWCC Compliance

Compliance with California Urban Water Conservation Council (CUWCC) Best Management Practices (BMPs) is required to receive financial assistance from the State of California for water projects (grants and loans). Demonstrating compliance with the BMPs has changed significantly.

The CUWCC's 14 BMPs are now organized into five categories. Two categories, Utility Operations and Education, are "Foundational BMPs", because they are considered to be essential water conservation activities by any utility and are adopted for implementation by all signatories to the MOU as ongoing practices with no time limits.

The remaining BMPs are "Programmatic BMPs" and compliance with the Programmatic water savings goals can be demonstrated in one of three ways:

1. Accomplishing the specific measures as listed in Section A of each BMP listed in the CUWCC Memorandum of Understanding (MOU)

2. Accomplishing a set of measures which achieves equal or greater water savings, referred to in the CUWCC Memorandum of Understanding as the Flex Track Menu

3. Accomplishing set water savings goals as measured in gallons per capita per day consumption compared to baseline historical water usage, i.e. 20x2020 target

BWP chose the 3rd option to comply with CUWCC Programmatic reporting standards. This method allows for results-oriented approach to water conservation, as opposed to the historic specific measures contained in the BMPs. Burbank has met and exceeded the 20% water use reduction already.

The City's completed forms needed to satisfy the CUWCC BMP reporting requirements for years 2011 and 2012 and the draft forms which were finalized in 2014 are contained in Attachment E. These submittals show Burbank is in compliance with the Gallons Per Capita per Day option.

SECTION 8: WATER AUDIT/WATER LOSS CONTROL

As required for this UWMP, BWP used the American Water Works Association (AWWA) Water Audit Software (version 5) to complete a water loss audit and calculate water losses. Total water loss was calculated by subtracting water sold (metered) from the total water supplied to the system from all sources (imported and locally produced). There are two broad types of losses which occur in drinking water utilities, apparent losses and real losses.

Apparent Losses

Apparent losses are the non-physical losses that occur in utility operations due to customer meter inaccuracies, systematic data handling errors in customer billing systems, and unauthorized consumption. This is water that is consumed but is not properly measured, accounted, or paid for. These losses cost utilities revenue and distort data on customer consumption patterns.

BWP controls these apparent losses by providing regular meter maintenance, testing, and replacement. Our proactive meter replacement program is on a 20-year cycle, meaning every meter in the system will be replaced after 20 years in service. BWP will continue to refine and enhance our maintenance and replacement programs to minimize meter inaccuracy as much as possible. Additionally, BWP does not allow the installation of unmetered services and provides rental hydrant meters for temporary usage of water.

BWP has also recently deployed advanced Automatic Meter Reading (AMR) and Automated Metering Infrastructure (AMI) systems. These systems improve efficiency by capturing customer consumption data, identifying wasteful usage and leakage, and include other enhancements to improve revenue capture and manage water losses.

A small component of apparent water losses is Unauthorized Water Consumption, which includes:

- water illegally withdrawn from fire hydrants
- illegal connections
- bypasses to customer consumption meters
- tampering with metering or meter reading equipment

Unauthorized consumption results in unrealized revenue and creates an error that understates customer consumption. In most water utilities this volume is low. BWP used the default value included in the AWWA Audit software of 0.25% of the volume of water supplied.

Water loss due to meter inaccuracy was calculated as recommended by AWWA Manual #36 using the weighted average meter accuracy method. Random meter testing was done to a sample of meters based on the percentage of each size class of meters in the overall system. Results are shown in Table 8-1 below:

Table 8-1: Water Meter Evaluation

Meter Size	Number of Meters in the System	Meters Tested	Average Accuracy	Volume of Water Sold (AF)	Apparent Losses from Meter's Accuracy (AF)
5/8" x 3/4"	16,125	63	0.9952	6,200	29.76
¾"	2,110	23	0.9962	750	2.85
1"	5,892	16	0.9943	2,350	13.40
1.5"	1,183	7	0.9973	1,825	4.93
2"	1,212	4	0.9961	2,150	8.39
3"	61	5	0.9947	435	2.31
4"	52	6	0.9986	412	0.58
6"	26	3	0.9785	385	8.28
				14,507	70.48

For data handling and systematic error, BWP used the AWWA Audit software default value of 0.25% of the total water supplied to the system.

Real Losses

Real losses are the physical losses of water from the distribution system, including leakage and storage, and tank overflows. These losses inflate the water utility's production costs and stress water resources since they represent water that is extracted and treated, yet never reaches beneficial use. Real losses are calculated by subtracting apparent losses from total system loss. As the worksheet in Appendix F shows, BWP's real losses in 2015 were approximately 347 AF or 2.3% of the water supplied to the system. BWP minimizes real losses by regularly and methodically replacing vulnerable water mains, which are identified and prioritized on our 5-year Capital Improvement Program (CIP). Additionally, BWP has a proactive water leak detection program. When leaks are found and located, repairs are done in a timely manner. BWP budgets to purchase 2.5% more potable water than expected sales to allow for non-revenue water.

Appendix A

Completed Urban Water Management Plan Checklist

Retail Checklist Arranged by Subject

CWC Section	UWMP Requirement	Subject	Burbank's UWMP Location
10620(b)	Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.	Plan Preparation	Section 1.2
10620(d)(2)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan Preparation	Section 1.3 & Table 1-1
10642	Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan.	Plan Preparation	Section 1.3 & Appendix B
10631(a)	Describe the water supplier service area.	System Description	Section 2.1 & Figure 2.1
10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 2.3 & Table 2-2
10631(a)	Provide population projections for 2020, 2025, 2030, and 2035.	System Description	Section 2.2 & Table 2-1
10631(a)	Describe other demographic factors affecting the supplier's water management planning.	System Description	Section 2.2
10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	Section 2.2
10631(e)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Sections 3.1 & 3.2; Tables 3-2 & 3-6
10631(e)(3)(A)	Report the distribution system water loss for the most recent 12-month period available.	System Water Use	Sections 3.1,3.3 & Table 3-8; Section 8 & Table 8.1
10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the supplier.	System Water Use	Section 3.3 & Table 3.7
10608.20(b)	Retail suppliers shall adopt a 2020 water use target using one of four methods.	Baselines and Targets	Section 3.2 & Tables 3.3 to 3.5
10608.20(e)	Retail suppliers shall provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	Baselines and Targets	Section 3.2 & Tables 3.3 to 3.5
10608.22	Retail suppliers' per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use of the 5 year baseline. This does not apply if the suppliers base GPCD is at or below 100.	Baselines and Targets	Section 3.2
10608.24(a)	Retail suppliers shall meet their interim target by December 31, 2015.	Baselines and Targets	Section 3.2
10608.24(d)(2)	If the retail supplier adjusts its compliance GPCD using weather normalization, economic adjustment, or extraordinary events, it shall provide the basis for, and data supporting the adjustment.	Baselines and Targets	n/a
10608.40	Retail suppliers shall report on their progress in meeting their water use targets. The data shall be reported using a standardized form.	Baselines and Targets	Section 3.2 & Appendix C
10631(b)	Identify and quantify the existing and planned sources of water available for 2015, 2020, 2025, 2030, and 2035.	System Supplies	Section 4.1 & Table 4-2
10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Sections 4.1 & 4.2
10631(b)(1)	Indicate whether a groundwater management plan has been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System Supplies	Section 4.2 (& link to ULARA Website)
10631(b)(2)	Describe the groundwater basin.	System Supplies	Section 4.2
10631(b)(2)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the supplier has the legal right to pump.	System Supplies	Section 4.2 & Appendix D
10631(b)(2)	For unadjudicated basins, indicate whether or not the department has identified the basin as overdrafted, or projected to become overdrafted. Describe efforts by the supplier to eliminate the long-term overdraft condition.	System Supplies	n/a
10631(b)(3)	Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years	System Supplies	Section 4.3 & Table 4-4

10631(b)(4)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System Supplies	Section 4.3 & Table 4-2
10631(d)	Describe the opportunities for exchanges or transfers of water on a short-term or long- term basis.	System Supplies	Section 4.6
10631(g)	Describe the expected future water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and multiple-dry years.	System Supplies	Sections 3.4, 4.8, 5.5 & Appendix C
10631(h)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 4.7
10631(j)	Retail suppliers will include documentation that they have provided their wholesale supplier(s) – if any - with water use projections from that source.	System Supplies	Sections 4.1 & 6.4 & Appendix C
10633	For wastewater and recycled water, coordinate with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area.	System Supplies (Recycled Water)	Sections 5.1, 5.2, 5.3
10633(a)	Describe the wastewater collection and treatment systems in the supplier's service area. Include quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.	System Supplies (Recycled Water)	Section 5.1 & Table 5-1, Appendix C
10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System Supplies (Recycled Water)	Sections 5.1, 5.2, 5.3 & Table 5-1, Appendix C
10633(c)	Describe the recycled water currently being used in the supplier's service area.	System Supplies (Recycled Water)	Section 5.2
10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System Supplies (Recycled Water)	Sections 5.2 & 5.3; Table 5-1
10633(e)	Describe the projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected.	System Supplies (Recycled Water)	Section 5.2 & Table 5-1
10633(f)	Describe the actions which may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System Supplies (Recycled Water)	Sections 5.2 & 5.3
10633(g)	Provide a plan for optimizing the use of recycled water in the supplier's service area.	System Supplies (Recycled Water)	Sections 5.2 & 5.3
10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water Supply Reliability Assessment	Sections 6.1 & 6.2
10631(c)(1)	Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage.	Water Supply Reliability Assessment	Sections 6.1 & 6.2
10631(c)(1)	Provide data for an average water year, a single dry water year, and multiple dry water years	Water Supply Reliability Assessment	Section 6.4
10631(c)(2)	For any water source that may not be available at a consistent level of use, describe plans to supplement or replace that source.	Water Supply Reliability Assessment	Section 6.4
10634	Provide information on the quality of existing sources of water available to the supplier and the manner in which water quality affects water management strategies and supply reliability.	Water Supply Reliability Assessment	Sections 6.1 & 6.2
10635(a)	Assess the water supply reliability during normal, dry, and multiple dry water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years.	Water Supply Reliability Assessment	Section 6.4
10632(a) and 10632(a)(1)	Provide an urban water shortage contingency analysis that specifies stages of action and an outline of specific water supply conditions at each stage.	Water Shortage Contingency Planning	Sections 6.6 & 6.7; Appendix C
10632(a)(2)	Provide an estimate of the minimum water supply available during each of the next three water years based on the driest three- year historic sequence for the agency.	Water Shortage Contingency Planning	Section 6.4 & Table 6-2; Appendix C
10632(a)(3)	Identify actions to be undertaken by the urban water supplier in case of a catastrophic interruption of water supplies.	Water Shortage Contingency Planning	Section 6.6
10632(a)(4)	Identify mandatory prohibitions against specific water use practices during water shortages.	Water Shortage Contingency Planning	Sections 6.5, 6.6, 6.7; Appendix C
10632(a)(5)	Specify consumption reduction methods in the most restrictive stages.	Water Shortage Contingency Planning	Sections 6.5, 6.6, 6.7; Appendix C

10632(a)(6)	Indicated penalties or charges for excessive use, where applicable.	Water Shortage Contingency Planning	Section 6.5 & 6.7
10632(a)(7)	Provide an analysis of the impacts of each of the actions and conditions in the water shortage contingency analysis on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts.	Water Shortage Contingency Planning	Section 6.5 & 6.7
10632(a)(8)	Provide a draft water shortage contingency resolution or ordinance.	Water Shortage Contingency Planning	Section 6.7
10632(a)(9)	Indicate a mechanism for determining actual reductions in water use pursuant to the water shortage contingency analysis.	Water Shortage Contingency Planning	Sections 6.5, 6.6, 6.7; Appendix C
10631(f)(1)	Retail suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand Management Measures	Section 7.1
10631(i)	CUWCC members may submit their 2013-2014 CUWCC BMP annual reports in lieu of, or in addition to, describing the DMM implementation in their UWMPs. This option is only allowable if the supplier has been found to be in full compliance with the CUWCC MOU.	Demand Management Measures	Section 7.4 & Appendix E
10608.26(a)	Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets.	Plan Adoption, Submittal, and Implementation	Appendix B
10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.	Plan Adoption, Submittal, and Implementation	Section 1.3 & Appendix B
10621(d)	Each urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.	Plan Adoption, Submittal, and Implementation	Section 1.3 & Appendix B
10635(b)	Provide supporting documentation that Water Shortage Contingency Plan has been, or will be, provided to any city or county within which it provides water, no later than 60 days after the submission of the plan to DWR.	Plan Adoption, Submittal, and Implementation	Appendix B
10642	Provide supporting documentation that the urban water supplier made the plan available for public inspection, published notice of the public hearing, and held a public hearing about the plan.	Plan Adoption, Submittal, and Implementation	Section 1.3 & Appendix B
10642	The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water.	Plan Adoption, Submittal, and Implementation	Section 1.4 & Appendix B
10642	Provide supporting documentation that the plan has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	Section 1.4 & Appendix B
10644(a)	Provide supporting documentation that the urban water supplier has submitted this UWMP to the California State Library.	Plan Adoption, Submittal, and Implementation	Appendix B
10644(a)(1)	Provide supporting documentation that the urban water supplier has submitted this UWMP to any city or county within which the supplier provides water no later than 30 days after adoption.	Plan Adoption, Submittal, and Implementation	Appendix B
10644(a)(2)	The plan, or amendments to the plan, submitted to the department shall be submitted electronically.	Plan Adoption, Submittal, and Implementation	Appendix B
10645	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Appendix B

Appendix B

Documentation of Postings/Notifications

March 9, 2016

County of Los Angeles
Chief Executive Office
Kenneth Hahn Hall of Administration
500 W. Temple St.
Los Angeles, CA 90012

SUBJECT: City of Burbank Urban Water Management Plan Update

The City of Burbank is currently preparing to update its Urban Water Management Plan (UWMP). California law requires the Burbank City Council to adopt an updated UWMP by July 1st, 2016. Public involvement and comment are encouraged, and the law specifically requires that notice be given to counties within which water service is provided. A public hearing regarding the draft Plan will be held in June of this year.

The Plan includes the following:

Assessment of past and future water supplies and demands
Evaluation of the future reliability of our water supplies
Information regarding water conservation and water management activities
Discussion of water recycling activities
Contingency planning for water shortages
Evaluation of distribution water losses

The 2010 version of the Plan is available on the Burbank Water and Power website (www.burbankwaterandpower.com). The Draft 2016 will be posted before the public hearing.

If you would like more information or have any questions, please contact Matthew Elsner, Principal Civil Engineer, at (818) 238-3500.

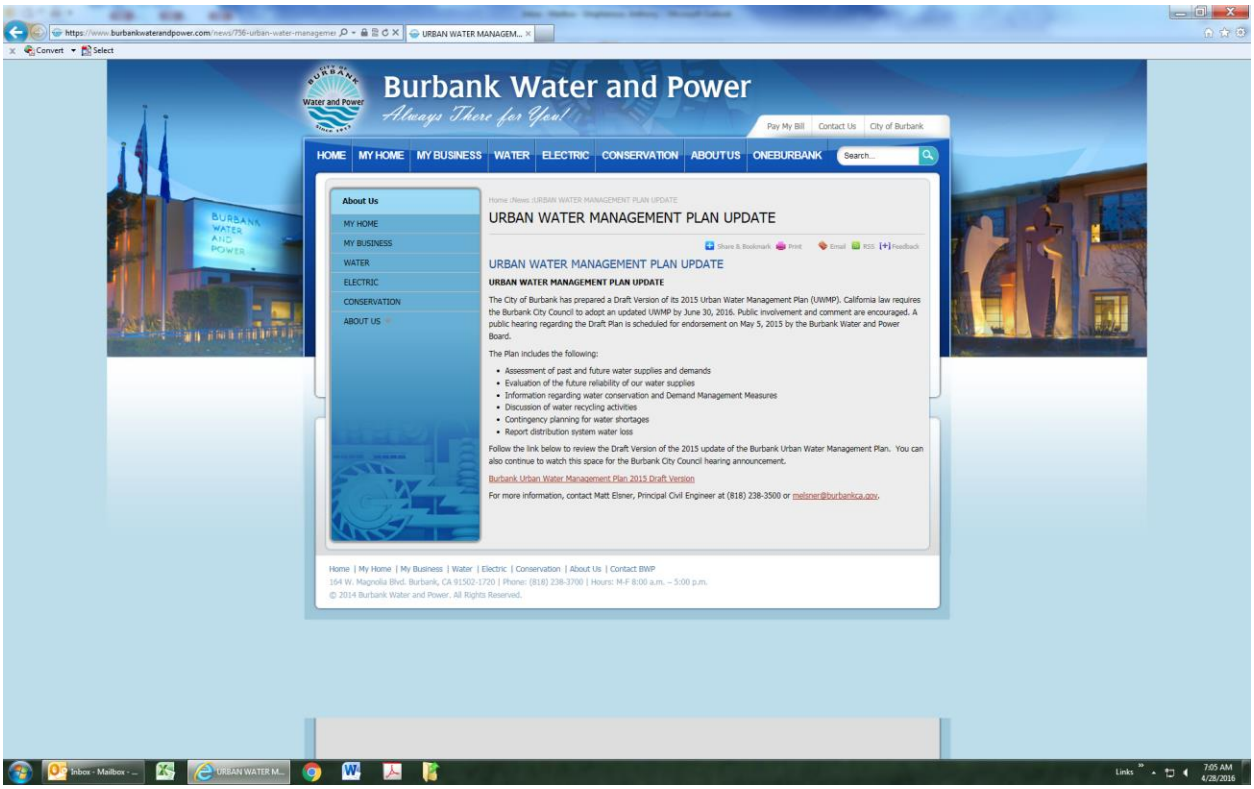
Sincerely,

William O. Mace, Jr.

William O. Mace, Jr., P.E.
Assistant General Manager–Water Systems

County UWMP Letter.docx

c: Urban Water Management Plan File
Chron File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The City of Burbank has prepared a Draft Version of its 2015 Urban Water Management Plan (UWMP). California law requires the Burbank City Council to adopt an updated UWMP by June 30, 2016. Public involvement and comment are encouraged. A public hearing regarding the Draft Plan is scheduled for endorsement on May 5, 2015 by the Burbank Water and Power Board.
The Plan includes the following:
Assessment of past and future water supplies and demands
Evaluation of the future reliability of our water supplies
Information regarding water conservation and Demand Management Measures
Discussion of water recycling activities
Contingency planning for water shortages
Report distribution system water loss
Follow the link below to review the Draft Version of the 2015 update of the Burbank Urban Water Management Plan. You can also continue to watch this space for the Burbank City Council hearing announcement.
Burbank Urban Water Management Plan 2015 Draft Version
For more information, contact Matt Elsner, Principal Civil Engineer at (818) 238-3500 or melsner@burbankca.gov.
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164 W. Magnolia Blvd. Burbank, CA 91502-1720 | Phone: (818) 238-3700 | Hours: M-F 8:00 a.m. – 5:00 p.m.
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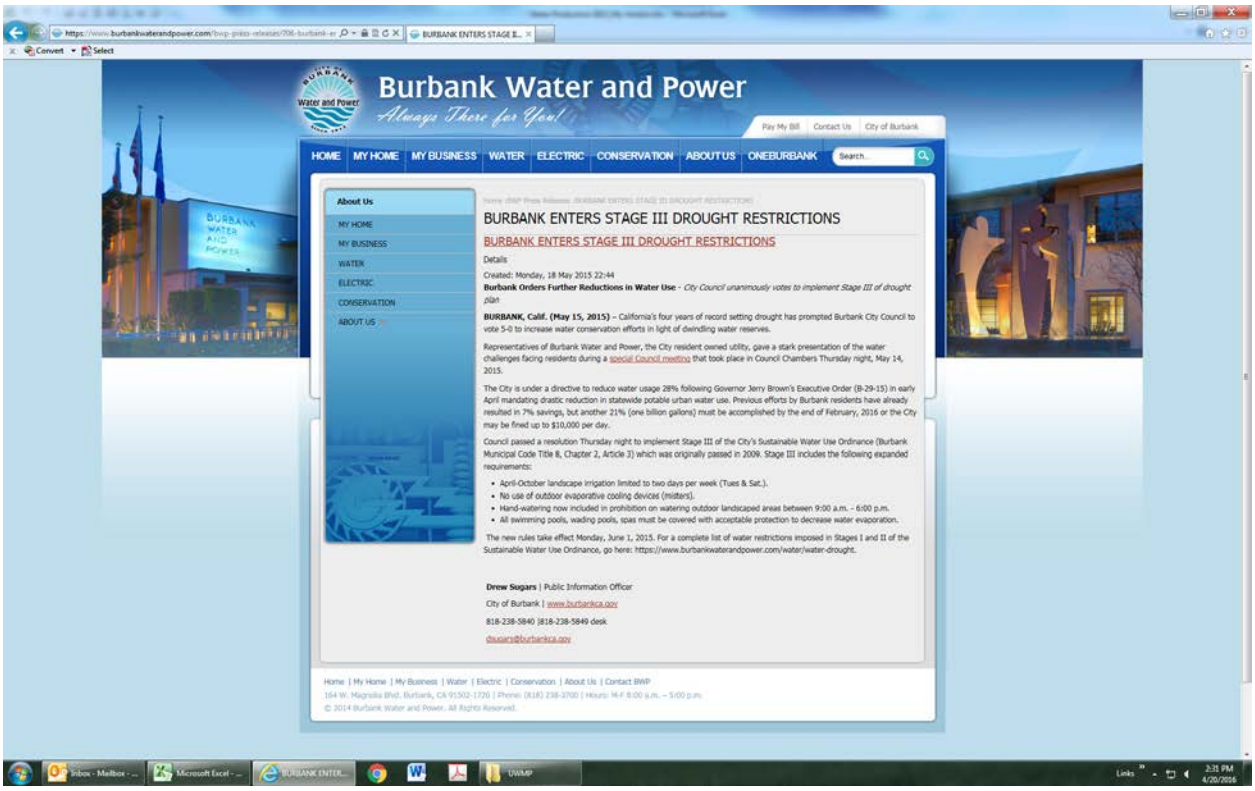
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BURBANK ENTERS STAGE III DROUGHT RESTRICTIONS
BURBANK ENTERS STAGE III DROUGHT RESTRICTIONS
Details
Created: Monday, 18 May 2015 22:44
Burbank Orders Further Reductions in Water Use - City Council unanimously votes to implement Stage III of drought plan
BURBANK, Calif. (May 15, 2015) – California's four years of record setting drought has prompted Burbank City Council to vote 5-0 to increase water conservation efforts in light of dwindling water reserves.
Representatives of Burbank Water and Power, the City resident owned utility, gave a stark presentation of the water challenges facing residents during a special Council meeting that took place in Council Chambers Thursday night, May 14, 2015.
The City is under a directive to reduce water usage 28% following Governor Jerry Brown's Executive Order (B-29-15) in early April mandating drastic reduction in statewide potable urban water use. Previous efforts by Burbank residents have already resulted in 7% savings, but another 21% (one billion gallons) must be accomplished by the end of February, 2016 or the City may be fined up to $10,000 per day.
Council passed a resolution Thursday night to implement Stage III of the City's Sustainable Water Use Ordinance (Burbank Municipal Code Title 8, Chapter 2, Article 3) which was originally passed in 2009. Stage III includes the following expanded requirements:
• April-October landscape irrigation limited to two days per week (Tues & Sat.).
• No use of outdoor evaporative cooling devices (misters).
• Hand-watering now included in prohibition on watering outdoor landscaped areas between 9:00 a.m. - 6:00 p.m.
• All swimming pools, wading pools, spas must be covered with acceptable protection to decrease water evaporation.
The new rules take effect Monday, June 1, 2015. For a complete list of water restrictions imposed in Stages I and II of the Sustainable Water Use Ordinance, go here: https://www.burbankwaterandpower.com/water/water-drought.
Drew Sugars | Public Information Officer
City of Burbank | www.burbankca.gov
818-238-5840 |818-238-5849 desk
dsugars@burbankca.gov
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Water Drought
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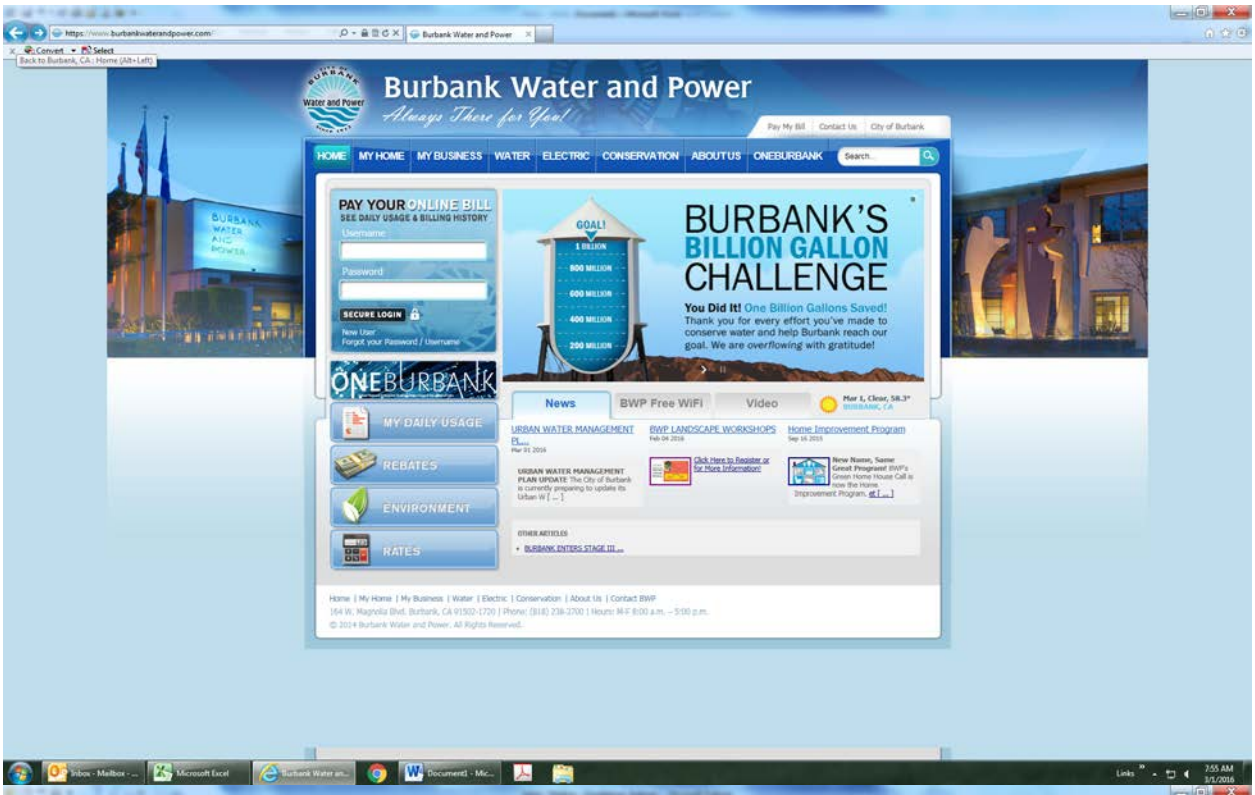
1 BILLION
800 MILLION
600 MILLION
400 MILLION
200 MILLION
BURBANK'S
BILLION GALLON
CHALLENGE
You Did It! One Billion Gallons Saved!
Thank you for every effort you've made to conserve water and help Burbank reach our goal. We are overflowing with gratitude!
YAY BURBANK!
By state mandate, Burbank had to conserve one billion gallons of water by February 2016. We hit this goal because of YOUR actions! So, to all of you who have been conserving water for years and years...thank you! For those of you who are perhaps newer to conservation but heeded the call to action in response to this historic drought...thank you! For all the big and small steps you took every day to save water, from covering pools and watering your lawns less, capturing shower water with a bucket, doing only full loads of laundry and not letting faucets run while brushing teeth, and to letting it "mellow if it's yellow"...thank you!
The drought isn't over yet, so keep up the good work!
OUTDOOR WATERING ALLOWED
2 DAYS / WEEK
The goal is to preserve water for basic indoor uses such as bathing, flushing, & washing.
Stage III Additional Requirements
Watering from April-October reduced to two days per week, on Tuesday and Saturday.
Hand watering allowed on any day but not between 9am and 6pm.
Use of outdoor evaporative cooling devices prohibited.
Cover all swimming pools, wading pools, or spas when not in use with acceptable protection designed to decrease water evaporation.
See Stage I and II rules of the Sustainable Water Use Ordinance.
Burbank's Watering Schedule
Up to 15 minutes of watering per station is allowed before 9am and after 6pm. Drip irrigation systems or low-flow sprinkler heads must adhere to the watering days, but may be used more than 15 minutes.
APRIL to OCTOBER
2 DAYS PER WEEK
ON TUESDAY & SATURDAY
NOVEMBER to MARCH
1 DAY PER WEEK
ON SATURDAY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Thank you for every effort you've made to conserve water and help Burbank reach our goal. We are overflowing with gratitude!
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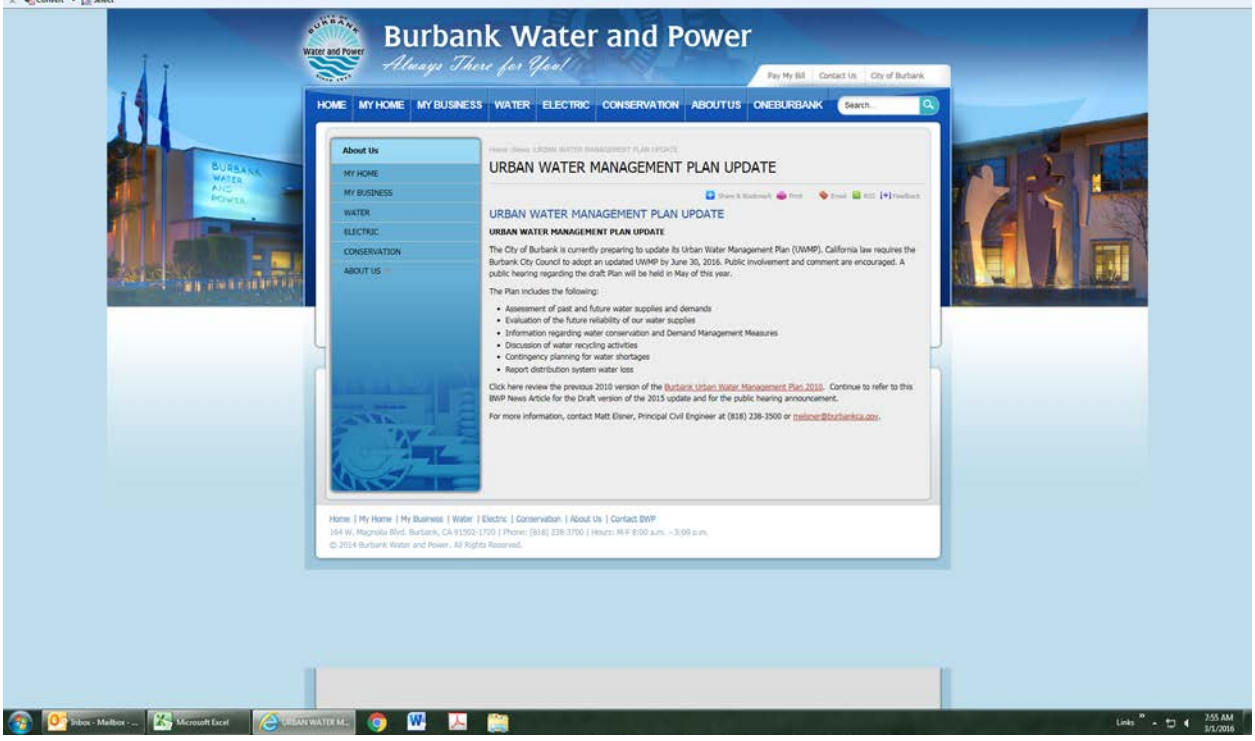
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URBAN WATER MANAGEMENT PLAN UPDATE
URBAN WATER MANAGEMENT PLAN UPDATE
The City of Burbank is currently preparing to update its Urban Water Management Plan (UWMP). California law requires the Burbank City Council to adopt an updated UWMP by June 30, 2016. Public involvement and comment are encouraged. A public hearing regarding the draft Plan will be held in May of this year.
The Plan includes the following:
Assessment of past and future water supplies and demands
Evaluation of the future reliability of our water supplies
Information regarding water conservation and Demand Management Measures
Discussion of water recycling activities
Contingency planning for water shortages
Report distribution system water loss
Click here review the previous 2010 version of the Burbank Urban Water Management Plan 2010. Continue to refer to this BWP News Article for the Draft version of the 2015 update and for the public hearing announcement.
For more information, contact Matt Elsner, Principal Civil Engineer at (818) 238-3500 or melsner@burbankca.gov.

From:	Umphenour, Anthony
To:	"RTakidin@GlendaleCA.GOV"; "LChan@GlendaleCA.GOV"; "bboman@cityofpasadena.net"; "David Gould"; "Simon.hsu@ladwp.com"; "mlombos@dpw.lacounty.gov"; "efandialan@mwdh2o.com"; "Michael DeGhetto"; "sergio.fierro@water.ca.gov"; "Tony Salazar"
Cc:	Elsner, Matthew
Subject:	RE: Burbank"s Draft 2015 UWMP
Date:	Tuesday, May 10, 2016 11:55:42 AM
Attachments:	image001.png image002.png

Burbank's Draft 2015 UWMP Update:

The public hearing will be held at Burbank's City Council on June 14, 2016.

Thanks,
Tony

From: Umphenour, Anthony
Sent: Monday, May 09, 2016 11:00 AM
To: 'RTakidin@GlendaleCA.GOV'; 'LChan@GlendaleCA.GOV'; 'bboman@cityofpasadena.net'; 'David Gould'; 'Simon.hsu@ladwp.com'; 'mlombos@dpw.lacounty.gov'; 'efandialan@mwdh2o.com'; Michael DeGhetto; 'sergio.fierro@water.ca.gov'; 'Tony Salazar'
Cc: Elsner, Matthew
Subject: Burbank's Draft 2015 UWMP

Good Morning,

On April 28th, 2016 Burbank posted its Draft 2015 Urban Water Management Plan (UWMP) on the Burbank Water and Power website which can be found at the following link:

https://www.burbankwaterandpower.com/news/756-urban-water-management-plan-update

A public hearing will be held at Burbank's City Council on June 7, 2016 to hear comments on the Draft 2015 UWMP.

California law requires the Burbank City Council to adopt an updated UWMP by June 30, 2016.

Public involvement and comments are encouraged.

Also, all water and other governmental agencies are welcome to review the Draft 2015 UWMP and forward your comments to Matthew Elsner, Principal Civil Engineer, before the hearing on June 7, 2016.

If you have any questions regarding the UWMP, please contact Matt Elsner at (818) 238-3500 or via email at MElsner@Burbankca.gov.

Best regards,

Tony Umphenour

Water Quality Analyst
Burbank Water and Power
818-238-3500

Burbank Water and Power

MEMORANDUM

DATE: May 5, 2016

TO: BWP Board

FROM: Jorge Somoano, Interim General Manager

SUBJECT: ENDORSEMENT OF THE 2015 URBAN WATER MANAGEMENT PLAN

PURPOSE:
This report is to request board endorsement of the 2015 Urban Water Management Plan.

BACKGROUND:
California Urban Water Management Planning Act (Act), Water Code Sections 10610 through 10657 requires many urban water suppliers to assess the reliability of its water sources over a 20-year planning horizon every five years through the preparation of an Urban Water Management Plan (Plan). Preparation of a Plan is required for suppliers that either provide over 3,000 acre-feet (AF) of water annually or serve 3,000 or more connections. The City of Burbank has over 26,000 water services and supplies more than 17,000 AF of potable water annually.

Plans were completed at the end of 1985, 1990, 1995, 2000, and 2005. In November 2009, Senate Bill 7 (SBx7-7) was passed into law, mandating a 20 percent per capita reduction in water use by December 31, 2020, along with an interim 10 percent reduction by the end of 2015. In order for urban water suppliers to incorporate these new changes into their upcoming 2010 plans, a six month deadline extension was granted, with the 2010 plans being due on or before July 1, 2011. Likewise, the 2015 Plan is due on or before July 1, 2016.

The Plan must include:

- Assessment of past and future water supplies and demands
- Evaluation of the future reliability of Burbank's water supplies
- Water conservation and water management activities
- Discussion of water recycling activities
- Contingency planning for water shortages
- Evaluation distribution system water losses

Staff has prepared a revised and updated 2015 Urban Water Management Plan, copies of which are attached for Board review and endorsement. Public involvement and comment have been solicited though BWP's website. Staff will present the highlights of the draft plan and requests the Board's comment and endorsement. A public hearing regarding the Plan will be held at the June 14 City Council Meeting. City Council must formally adopt the plan by resolution, after which it will be submitted to the California Department of Water Resources.

RECOMMENDATION:
Staff requests Board endorsement of the 2015 Urban Water Management Plan and recommendation of its approval to City Council.

Doxsee, Bob

From: Doxsee, Bob
Sent: Tuesday, May 10, 2016 12:03 PM
To: Rynn, Daniel
Subject: Urban Water Management Plan Draft for Review

The draft 2015 Urban Water Management Plan is now available on the BWP website. Here is the link:

https://www.burbankwaterandpower.com/news/756-urban-water-management-plan-update

Any comments and suggestions for improvement will be appreciated. Section 5, especially, has important discussions of wastewater collection and treatment and water recycling.

A public hearing on the plan is expected to be held at the June 14 City Council meeting. Your comments are welcome any time, but preferably by the hearing date in order to be considered for the final version of the plan.

For more information, or to send comments, contact Matt Elsner, Principal Civil Engineer, at (818) 238-3500 or melsner@burbankca.gov.

Thank you very much.

Robert Doxsee, P.E. ● City of Burbank Water and Power
164 W. Magnolia Blvd. ● P.O. Box 631 ● Burbank, CA 91503
(818) 238-3500 ● bdoxsee@burbankca.gov

Doxsee, Bob

From: Doxsee, Bob
Sent: Tuesday, May 10, 2016 11:58 AM
To: Hernandez, Alfonso
Cc: Barrett, Carol; Plambaeck, Scott; Foote, Brian; Elsner, Matthew
Subject: Urban Water Management Plan Draft for Review

The draft 2015 Urban Water Management Plan is now available on the BWP website. Here is the link:

https://www.burbankwaterandpower.com/news/756-urban-water-management-plan-update

Any comments and suggestions for improvement will be appreciated. Section 2, and especially Part 2.2, are the ones most related to CDD Planning. Thank you to Carol Barrett, who already gave me helpful information on population and the Burbank2035 General Plan and Housing Element.

A public hearing on the plan is expected to be held at the June 14 City Council meeting. Your comments are welcome any time, but preferably by the hearing date in order to be considered for the final version of the plan.

For more information, or to send comments, contact Matt Elsner, Principal Civil Engineer, at (818) 238-3500 or melsner.ci.burbank.ca.us.

Thank you very much.

Robert Doxsee, P.E. ● City of Burbank Water and Power
164 W. Magnolia Blvd. ● P.O. Box 631 ● Burbank, CA 91503
(818) 238-3500 ● bdoxsee@burbankca.gov

From: Foote, Brian
Sent: Monday, April 18, 2016 1:06 PM
To: Doxsee, Bob; Elsner, Matthew
Cc: Barrett, Carol; Plambaeck, Scott; Hernandez, Alfonso
Subject: RE: CDD Contact for Urban Water Management Plan

Alfonso Hernandez will be the primary point of contact for this.

Brian Foote, AICP | Senior Planner
City of Burbank | Planning Division
☎ (818) 238-5250 | ✉: bfoote@burbankca.gov

From: Elsner, Matthew
Sent: Thursday, March 31, 2016 11:24 AM
To: Prescott, Patrick
Cc: Mace, Bill
Subject: CDD Contact for Urban Water Management Plan

Patrick,

BWP is in the process of updating our Urban Water Management Plan. The plan includes a discussion of population and land use as it relates to future water use. Who in your department would be the best person to coordinate our efforts with?

Thanks

Matt

Matthew M. Elsner, P.E.
Burbank Water and Power

Doxsee, Bob

From: Fandialan,Edgar P <efandialan@mwdh2o.com>
Sent: Wednesday, March 23, 2016 1:25 PM
To: Doxsee, Bob
Subject: RE: Questions about reliability findings in IRP and UWMP

Hi Bob,

You are welcome. And yes, those table are being corrected for the final UWMP.

Thanks,
Edgar

From: Doxsee, Bob [mailto:BDoxsee@burbankca.gov]
Sent: Wednesday, March 23, 2016 11:58 AM
To: Fandialan,Edgar P
Subject: RE: Questions about reliability findings in IRP and UWMP

Edgar,

Thank you for these answers and for your comments on my draft Burbank UWMP paragraphs. I will incorporate the comments.

About the historic hydrologic period of 1922-2012, not 1922-2004, the City of Burbank Average Year data sheet, Draft, November 13, 2015, says it used the average of 1922-2004. Also, I just noticed that 1922-2004 is cited in several places in the latest MWD draft UWMP. Please see Tables 3-1, 3-2, 3-3, and A.3-7. Should all these be taken as 1922-2012? If so, which seems most likely, they will be corrected in the final UWMP, right?

Thanks again,

Robert B. Doxsee, P.E.
Civil Engineering Associate

Water Engineering/Planning Section
City of Burbank Water and Power
P.O. Box 631
Burbank, CA 91503-0631

Telephone: (818) 238-3500
Fax: (818) 238-3508

From: Fandialan,Edgar P [mailto:efandialan@mwdh2o.com]
Sent: Thursday, March 17, 2016 3:29 PM
To: Doxsee, Bob
Subject: RE: Questions about reliability findings in IRP and UWMP

Hi Bob,

Here are a few bullets that I hope will answer your questions:

- The UWMP is consistent with the IRP, and there is no contradiction.
- The 2015 IRP "Do Nothing" case that you were referring to shows likelihood of allocation based on sequential analysis of a repeat of the historic 91 hydrology.
- The 2015 UWMP Tables 2-4, 2-5, and 2-6 show Metropolitan's supply reliability to meet forecasted demands using supply projects that are existing and under development. The supply capability takes into account all the programs (including program constraints) that may be exercised to meet the projected demand not necessarily the water that will be available on the year.
- In developing the supply capabilities for the 2015 UWMP, Metropolitan is showing a repeat of hydrologic condition (as specified in the Act) in each of the 5-year increment for the next 25 years.
  - As the draft UWMP indicates, Metropolitan assumed the current (2015) storage levels at the start of simulation and used the median storage levels going into each of the five-year increments based on the balances of supplies and demands. Using this storage condition, there is an estimated 50 percent probability that storage levels would be higher than the assumption used, and a 50 percent probability that storage levels would be lower than the assumption used.
  - It is important to note that under some conditions, Metropolitan may choose to implement the WSAP in order to preserve storage reserves for a future year, instead of using the full supply capability. This can result in impacts at the retail level even under conditions where there may be adequate supply capabilities to meet demands.
- The supply reliability tables illustrates that, while there are "surplus" for multiple dry year scenarios under capability of existing programs and with median storage, the surplus is only a freeboard of 60 TAF to 150 TAF. This is a small surplus if you consider that the total demand on Metropolitan is projected to be almost 2 MAF by 2040. Thus, there is a need for proposed programs to be developed as recommended by the 2015 IRP.
- Comment on your paragraph:
  - The average year covers historic hydrologic period of 1922-2012 not 1922-2004.
  - In addition to diverse supply portfolio, Metropolitan also has management options in place to handle variations in supply and demand.
- The data Metropolitan distributed to the member agencies in November 2015 is current.

Thanks,
Edgar

From: Doxsee, Bob [mailto:BDoxsee@burbankca.gov]
Sent: Wednesday, March 16, 2016 8:43 AM
To: Fandialan,Edgar P
Subject: Questions about reliability findings in IRP and UWMP

Thank you for taking time this afternoon to discuss my questions by telephone. As you suggested, I will put them in writing here.

I need to understand the reliability findings in the IRP and UWMP, because Burbank's reliability depends on that of MWD. In Chapter 2 of the UWMP, at the bottom of page 2-4 under Findings and Conclusions (of the 2015 IRP Update), it says that the California WaterFix is necessary to avoid "unacceptable level of shortage allocation frequency". On page 6-1 of the Draft IRP, Figure 6-1 shows an 80 percent likelihood of allocation by 2040 with the "Do Nothing" case. I suppose these two passages are talking about the same thing. (Of course, there are many more references to these facts throughout the documents.)

Then, in the UWMP on pages 2-14 through 2-16, Tables 2-4, 2-5, and 2-6 present the supply capability and projected demands under three conditions required for UWMPs. In all three cases, comparing the capability of

current programs with the projected demands, there are surpluses, even without programs under development. This seems to indicate that there is reliability through 2040 even without the WaterFix, which is among the programs under development.

So, this seems to be a contradiction. I expect there is an explanation. The plans are very complex, and there may be some differences between what is described by these two sections. So, the question is, how do we explain the apparent contradiction? Will we have reliability even without the WaterFix?

Since beginning this e-mail, I noticed the following lines at the top of page EW-5 in the UWMP. "It is important to note that under some conditions, Metropolitan may choose to implement the WSAP in order to preserve storage reserves for a future year, instead of using the full supply capability. This can result in impacts at the retail level even under conditions where there may be adequate supply capabilities to meet demands." Maybe this is part of the answer.

Here is an excerpt from our work-in-progress 2015 UWMP. While we are on the subject of reliability, please let me know any suggested improvements.

MWD discusses regional water supply reliability in its Regional 2015 Urban Water Management Plan (UWMP; Draft, February 2016). The UWMP uses information from the Integrated Water Resources Plan Draft 2015 Update), the 1999 Water Surplus and Drought Management (WSDM) Plan, and other MWD planning studies. To develop average year supply and demand estimates, MWD used the historic hydrology for 1922 through 2004. For dry year planning, they used the historic one-year (1977) and three-years (1990-1992) dry periods on the SWP because "it is Metropolitan's largest and most variable supply."

MWD works to have access to a "diverse water portfolio" with alternatives that allow it to meet demands even in years when the primary supplies would not be enough. Part of the plan is to have water storage capacity to draw on when supplies are short. They use an "adaptive management" approach to better respond to uncertainty. The goal is to meet 100% of full-service retail demands under foreseeable hydrologic conditions. Ultimately, if MWD has sufficient water, so does Burbank. In the 2015 IRP update, MWD describes unprecedented challenges on both the State Water Project and the Colorado River imported water supplies. They emphasize that significant action is needed to meet the IRP goals for reliability. In particular, they are planning on the implementation of the California Water Fix to improve water deliveries on the State Water Project.

Thank you very much.

Robert Doxsee
Civil Engineering Associate
Burbank Water and Power
(818) 238-3500

Doxsee, Bob

From: Barrett, Carol
Sent: Monday, April 18, 2016 9:53 AM
To: Doxsee, Bob
Cc: Kriske, David
Subject: RE: P.S. about population, etc.

Expires: Saturday, October 15, 2016 12:00 AM

Your numbers look a little lower than the adopted General Plan for 2035, but development has been so slow the past couple of years that I don't see a problem. I reviewed the table with David Kriske who is our guru on this forecasting.

Carol B.

Carol D. Barrett, FAICP | Assistant Director
City of Burbank | Planning Division
150 North Third Street
Burbank, CA 91502-1264
Office: 818-238-5250 | Fax: 818-238-5150
cbarrett@burbankca.gov

From: Doxsee, Bob
Sent: Thursday, April 14, 2016 5:02 PM
To: Barrett, Carol
Subject: P.S. about population, etc.

Thank you for your help this afternoon. You asked if I needed anything else. While you gave a good answer already, it would be good if you could look at the table of MWD numbers in my e-mail when you have time and just see if you have any comments on them.

Thanks again,

Bob Doxsee

Robert Doxsee
Civil Engineering Associate
Burbank Water and Power
(818) 238-3500

Doxsee, Bob

From: Doxsee, Bob
Sent: Thursday, April 14, 2016 4:39 PM
To: Barrett, Carol
Subject: Population Projections and Recent Residential Units for UWMP

BWP is preparing the 2015 Urban Water Management Plan (UWMP). This plan is updated every five years as required by State law. The new UWMP looks at water supply reliability through 2040.

Metropolitan Water District (MWD) does regional water supply planning. MWD provided demographic and water demand projections developed with its econometric computer models. The growth projections were based on the SCAG 2012 Regional Transportation Plan, and they also looked at the work-in-progress SCAG 2016 plan. Will you please take a look at the table (especially the populations) and let me know if there are any concerns, anything you would recommend modifying for our planning purposes? By the way, for 2015 population, I have 106,084 from the California Department of Finance website.

City of Burbank

Average Year

(Average of 1922-2004 Hydrology)

Demographics[1]	2020	2025	2030	2035	2040
Population	112,451	113,179	114,850	115,680	118,821
Occupied Housing Units	46,002	46,334	46,666	46,998	48,468
Single Family	22,208	21,981	22,067	22,245	22,698
Multi-Family	23,794	24,353	24,599	24,753	25,769
Persons Per Household	2.43	2.42	2.44	2.44	2.43
Urban Employment	104,363	108,881	112,732	116,441	119,280

Also, do you have any data on numbers of single-family and multiple-family residential units that have been added per year for the last two or three years? I was asked to get this to compare with the long-term projections.

Thank you for taking the time to look at this. If you have any questions about the request, or if you would like to discuss any aspect of the UWMP, please let me know.

Robert B. Doxsee, P.E.
Civil Engineering Associate

Water Engineering/Planning Section
City of Burbank Water and Power
P.O. Box 631
Burbank, CA 91503-0631

Telephone: (818) 238-3500
Fax: (818) 238-3508

URBAN WATER MANAGEMENT PLAN UPDATE

The City of Burbank has prepared a Final version of its 2015 Urban Water Management Plan (UWMP) to be presented to the Burbank City Council. California law requires the Burbank City Council to adopt an updated UWMP by June 30, 2016.

A draft 2015 UWMP was endorsed on May 5th, 2016 by the BWP's Board and recommended adoption to the Burbank City Council.

The Hearing at the Council Meeting will be held on Tuesday, June 14th, 2016 at 6:00pm. The Council Chamber is located at 275 E. Olive Avenue, Burbank, CA 91502.

Public involvement and comment are encouraged.

If you have a question about any matter on the agenda, please call the office of the City Clerk at (818) 238-5851.

The Plan includes the following:

- Assessment of past and future water supplies and demands
- Evaluation of the future reliability of our water supplies
- Information regarding water conservation and Demand Management Measures
- Discussion of water recycling activities
- Contingency planning for water shortages
- Report distribution system water loss

The Final version for City Council can be found at the below link:

[Burbank Urban Water Management Plan 2015 Final Version]

For more information, contact Matt Elsner, Principal Civil Engineer at (818) 238-3500 or melsner@burbankca.gov.

The following public hearing report is being distributed to City Council in advance.

This item is scheduled for June 14, 2016

Please retain this copy as it will not be distributed again with the agenda packet

CITY OF BURBANK

BURBANK WATER AND POWER

STAFF REPORT

DATE: June 14, 2016

TO: Ron Davis, Interim City Manager

FROM: Jorge Somoano, Acting General Manager, Burbank Water and Power

SUBJECT: ADOPTION OF THE 2015 URBAN WATER MANAGEMENT PLAN

RECOMMENDATION

Staff requests City Council adoption of the 2015 Urban Water Management Plan and move to adopt the Resolution entitled "A RESOLUTION OF THE COUNCIL OF THE CITY OF BURBANK ADOPTING THE 2015 URBAN WATER MANAGEMENT PLAN" ("Exhibit A").

BACKGROUND

California Urban Water Management Planning Act (Act), Water Code Sections 10610 through 10657 requires many urban water suppliers to assess the reliability of its water sources over a 20-year planning horizon every five years through the preparation of an Urban Water Management Plan (Plan). Preparation of a Plan is required for suppliers that either provide over 3,000 acre-feet (AF) of water annually or serve 3,000 or more connections. The City of Burbank has over 26,000 water services and supplies more than 17,000 AF of potable water annually.

Plans were completed at the end of 1985, 1990, 1995, 2000, and 2005. In November 2009, Senate Bill 7 (SBx7-7) was passed into law, mandating a 20 percent per capita reduction in water use by December 31, 2020, along with an interim 10 percent reduction by the end of 2015. In order for urban water suppliers to incorporate the changes mandated by SBx7-7 into their 2010 plans, a six month deadline extension was granted for the 2010 plans to be submitted by July 1, 2011. The 2015 Plan is due on or before July 1, 2016.

The Plan must include:

- Assessment of past and future water supplies and demands
- Evaluation of the future reliability of Burbank's water supplies
- Water conservation and water management activities

- Discussion of water recycling activities
- Contingency planning for water shortages
- Evaluation of distribution system water losses

DISCUSSION

Staff has prepared a 2015 Plan ("Exhibit B") meeting all statutory requirements, copies of which are attached for review and approval. Public involvement and comment have been solicited through Burbank Water and Power's website. City Council must formally adopt the Plan by resolution, after which it will be submitted to the California Department of Water Resources.

The 2015 Plan includes a revised calculation of a 2020 water use target of 157 gallons per capita per day (gpcd) and an interim (2015) target of 177 gpcd. Burbank's 2015 calendar year water use was less than the 2015 and 2020 targets at 127 gpcd due to mandatory conservation requirements imposed by the Governor's Executive Order. We expect to meet the 2020 target through continued water conservation efforts, continued water system maintenance, and maximizing recycled water use.

The City's potable water supply is composed of groundwater resources and surface water resources provided by the Metropolitan Water District (MWD). There are factors which could affect the reliability of groundwater supply which we cannot control, such as new water quality standards for emerging contaminants. This uncertainty is bridged by our status as a member agency of the MWD. MWD stated, through its own Urban Water Management Plan, that it has adequate supplies for its service area through 2040.

FISCAL IMPACT

No fiscal impact.

CONCLUSION

Staff requests City Council adopt the 2015 Urban Water Management Plan.

If the Council concurs, the appropriate action would a motion to adopt the Resolution entitled "A "A RESOLUTION OF THE COUNCIL OF THE CITY OF BURBANK ADOPTING THE 2015 URBAN WATER MANAGEMENT PLAN".

EXHIBITS

Exhibit A – Resolution
Exhibit B – 2015 Urban Water Management Plan

RESOLUTION NO. _____

A RESOLUTION OF THE COUNCIL OF THE CITY OF BURBANK ADOPTING THE 2015 URBAN WATER MANAGEMENT PLAN.

THE COUNCIL OF THE CITY OF BURBANK FINDS:

A. The Urban Water Management Planning Act (Water Code Section 10610 et seq.; hereinafter "the Act") mandates that every supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre feet of water annually, prepare and adopt an Urban Water Management Plan, the primary objectives of which are to evaluate water supplies and demands, including the reliability of supplies, to plan for the conservation and efficient use of water, and to prepare for water shortages.

B. The City of Burbank is an urban supplier of water providing water to a population of over 100,000 and is required to prepare and adopt an Urban Water Management Plan pursuant to the Act.

C. The Act provides that the Plan be reviewed and updated at least once every five years, in years ending in five and zero, and that the City make any changes or amendments to the Plan which are indicated by the review.

D. Any such changes or amendments to the Plan must be adopted by July 1, 2016, after public review and hearing, and filed with the California Department of Water Resources and the California State Library within thirty (30) days of adoption.

E. The City has prepared and circulated for public review a draft 2015 Urban Water Management Plan, which changes or amends the 2010 Plan.

F. A duly noticed public hearing regarding such changes or amendments to the Plan was held by the City Council on June 14, 2016.

THE COUNCIL OF THE CITY OF BURBANK RESOLVES:

1. The 2015 Urban Water Management Plan is hereby adopted and ordered filed with the City Clerk.

2. The General Manager of Burbank Water and Power is hereby authorized and directed to file the 2015 Urban Water Management Plan with the California Department of Water Resources and the California State Library within thirty (30) days after this date.

3. The City Clerk shall certify to the passage and adoption of this Resolution.

PASSED and ADOPTED this _____day of _____, 2016.

_____
Jess A. Talamantes
Mayor of the City of Burbank

Attest:

_____
Zizette Mullins, CMC, City Clerk

Approved as to Form:
Office of the City Attorney

By: _____
Christopher Chwang
Senior Assistant City Attorney

STATE OF CALIFORNIA)
CITY OF BURBANK) ss.
COUNTY OF LOS ANGELES)

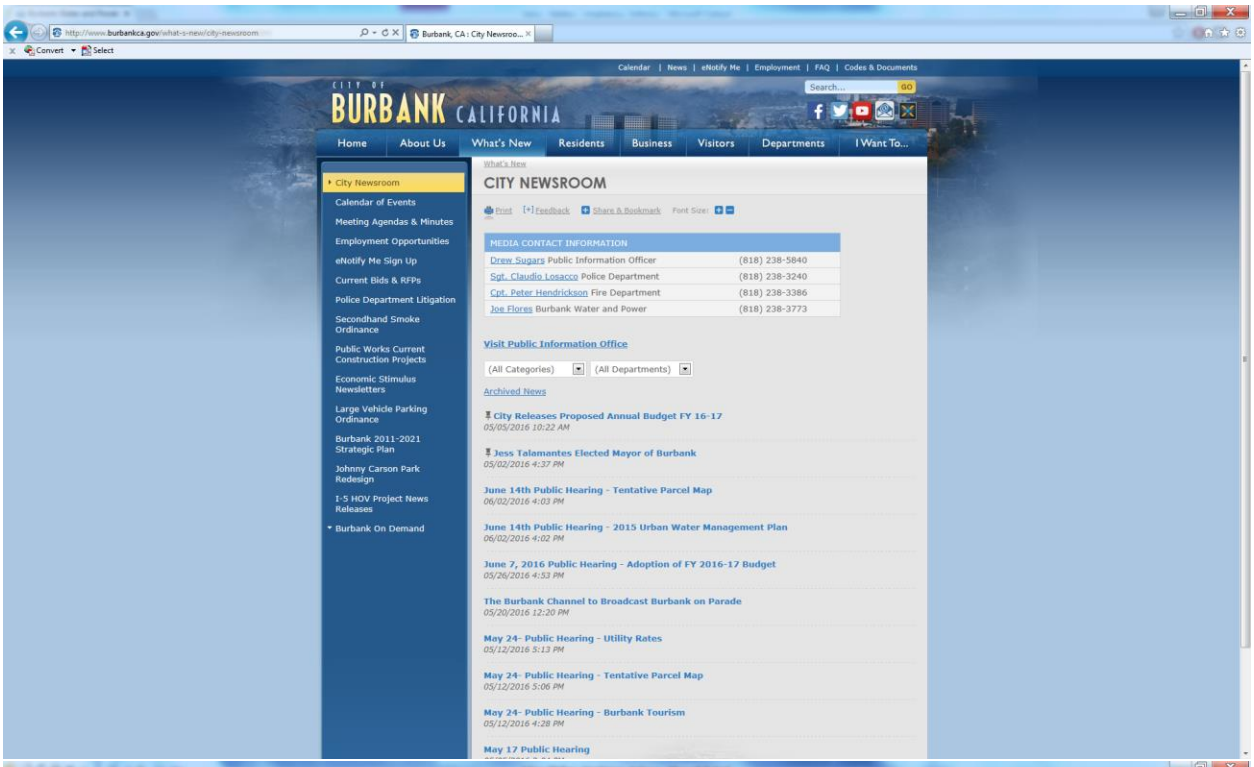
I, Zizette Mullins, CMC, City Clerk of the City of Burbank, do hereby certify that the foregoing Resolution was duly and regularly passed and adopted by the Council of the City of Burbank at its regular meeting held on the ____ day of _____, 2016 by the following vote:

AYES:

NOES:

ABSENT:

_____
Zizette Mullins, CMC, City Clerk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Johnny Carson Park Redesign
I-5 HOV Project News Releases
Burbank On Demand
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Drew Sugars Public Information Officer (818) 238-5840
Sgt. Claudio Losacco Police Department (818) 238-3240
Cpt. Peter Hendrickson Fire Department (818) 238-3386
Joe Flores Burbank Water and Power (818) 238-3773
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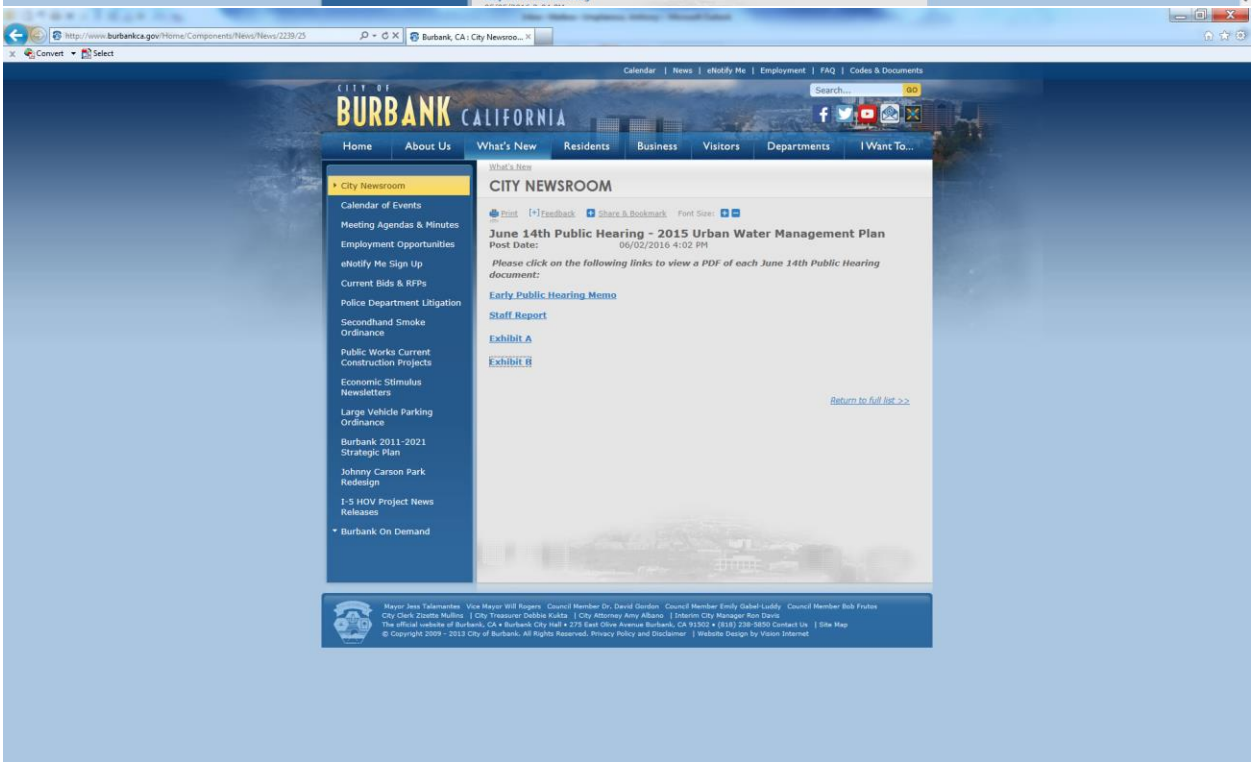
Archived News
City Releases Proposed Annual Budget FY 16-17
05/05/2016 10:22 AM
Jess Talamantes Elected Mayor of Burbank
05/02/2016 4:37 PM
June 14th Public Hearing - Tentative Parcel Map
06/02/2016 4:03 PM
June 14th Public Hearing - 2015 Urban Water Management Plan
06/02/2015 4:02 PM
June 7, 2016 Public Hearing - Adoption of FY 2016-17 Budget
05/26/2016 4:53 PM
The Burbank Channel to Broadcast Burbank on Parade
05/20/2016 12:20 PM
May 24- Public Hearing - Utility Rates
05/12/2016 5:13 PM
May 24- Public Hearing - Tentative Parcel Map
05/12/2016 5:06 PM
May 24- Public Hearing - Burbank Tourism
05/12/2016 4:28 PM
May 17 Public Hearing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Secondhand Smoke Ordinance
Public Works Current Construction Projects
Economic Stimulus Newsletters
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Johnny Carson Park Redesign
I-5 HOV Project News Releases
Burbank On Demand
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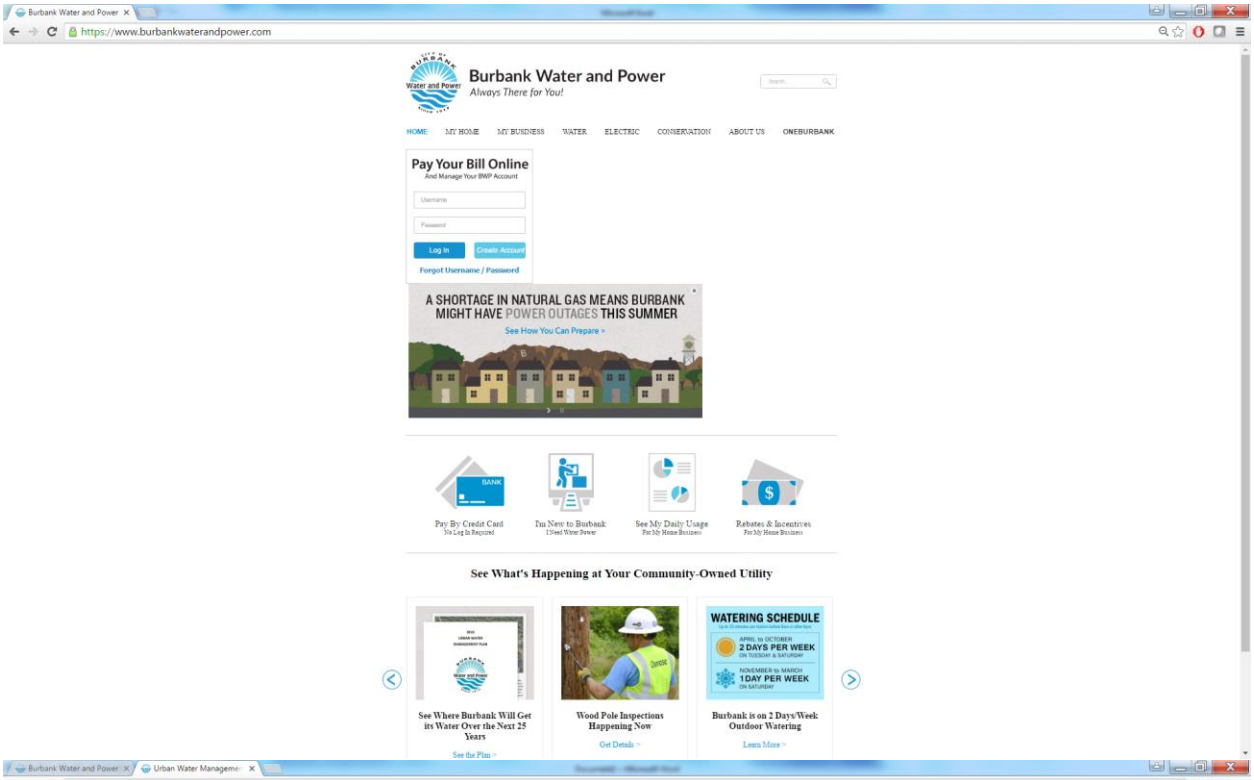
June 14th Public Hearing - 2015 Urban Water Management Plan
Post Date: 06/02/2016 4:02 PM
Please click on the following links to view a PDF of each June 14th Public Hearing document:
Early Public Hearing Memo
Staff Report
Exhibit A
Exhibit B
Return to full list >>

6/8/16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1 DAY PER WEEK
Burbank is on 2 Days/Week Outdoor Watering
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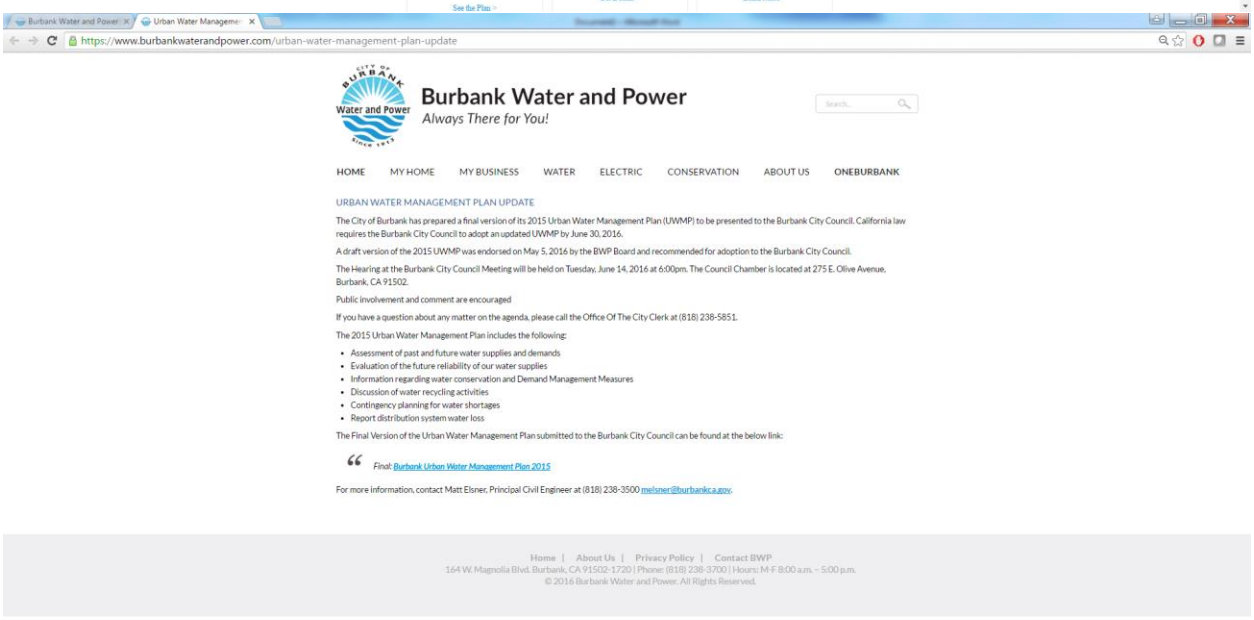
Burbank Water and Power
Urban Water Management Plan Update
https://www.burbankwaterandpower.com/urban-water-management-plan-update
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URBAN WATER MANAGEMENT PLAN UPDATE
The City of Burbank has prepared a final version of its 2015 Urban Water Management Plan (UWMP) to be presented to the Burbank City Council. California law requires the Burbank City Council to adopt an updated UWMP by June 30, 2016.
A draft version of the 2015 UWMP was endorsed on May 5, 2016 by the BWP Board and recommended for adoption to the Burbank City Council.
The Hearing at the Burbank City Council Meeting will be held on Tuesday, June 14, 2016 at 6:00pm. The Council Chamber is located at 275 E. Olive Avenue, Burbank, CA 91502.
Public involvement and comment are encouraged
If you have a question about any matter on the agenda, please call the Office Of The City Clerk at (818) 238-5851.
The 2015 Urban Water Management Plan includes the following:
Assessment of past and future water supplies and demands
Evaluation of the future reliability of our water supplies
Information regarding water conservation and Demand Management Measures
Discussion of water recycling activities
Contingency planning for water shortages
Report distribution system water loss
The Final Version of the Urban Water Management Plan submitted to the Burbank City Council can be found at the below link:
Final: Burbank Urban Water Management Plan 2015
For more information, contact Matt Elsner, Principal Civil Engineer at (818) 238-3500 melsner@burbankca.gov.
Home | About Us | Privacy Policy | Contact BWP
164 W. Magnolia Blvd. Burbank, CA 91502-1720 | Phone: (818) 238-3700 | Hours: M-F 8:00 a.m. - 5:00 p.m.
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NOTICE OF PUBLIC HEARING BEFORE THE BURBANK CITY COUNCIL REGARDING THE CITY OF BURBANK'S 2015 URBAN WATER MANAGEMENT PLAN

On Tuesday, June 14, 2016, at 6:30 p.m., in the Council Chamber of the City Hall, 275 East Olive Avenue, Burbank, California, the City Council will hold a public hearing regarding the City of Burbank's 2015 Urban Water Management Plan. The California Urban Water Management Planning Act (Assembly Bill 797, California Water Code Division 6, Part 2.6) requires that the City's Urban Water Management Plan be reviewed and updated this year; that the Plan be made available for public inspection; and, that a public hearing be held prior to adoption of the Plan.

The Urban Water Management Plan includes evaluations of historical and future water supplies and demands, and of the reliability of the supplies, and descriptions of water conservation and water management activities, including water recycling and preparation for water shortages.

The Draft 2015 Urban Water Management Plan for the City of Burbank is available for inspection at the Water Division of Burbank Water and Power and on the Burbank Water and Power website, www.burbankwaterandpower.com.

Los Angeles Times
MEDIA GROUP

Sold To:
City Clerk - City of Burbank - CU00064602
275 E Olive Ave
BURBANK,CA 91502-1267

Bill To:
City Clerk - City of Burbank - CU00064602
275 E Olive Ave
BURBANK,CA 91502-1267

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Los Angeles Times
MEDIA GROUP

PROOF OF PUBLICATION
(2015.5 C.C.P.)

STATE OF ILLINOIS
County of Cook

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the action for which the attached notice was published.

I am a principal clerk of the Burbank Leader, which was adjudged a newspaper of general circulation on June 21, 1927, Cases 221017 for the City of Burbank, County of Los Angeles, and State of California. Attached to this Affidavit is a true and complete copy as was printed and published on the following date(s):

May 21, 2016; May 25, 2016; May 28, 2016; Jun 01, 2016; Jun 04, 2016; Jun 08, 2016; Jun 11, 2016

I certify (or declare) under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Dated at Chicago, Illinois
on this 13 day of Jun, 2016.

[signature]

435 N. Michigan Ave.
Chicago, IL 60611

Public Hearing to Consider Adoption of the 2015 Urban Water Management Plan

June 14, 2016

Why Are We Here?

- California Urban Water Management Planning Act
  - Assessment of the reliability of water sources over a 20-year horizon every five years
  - Triggers:
    - > 3,000 AF of water annually or
    - > 3,000 connections
- BWP has >26,000 water services and supplies >15,000 AF of potable water annually

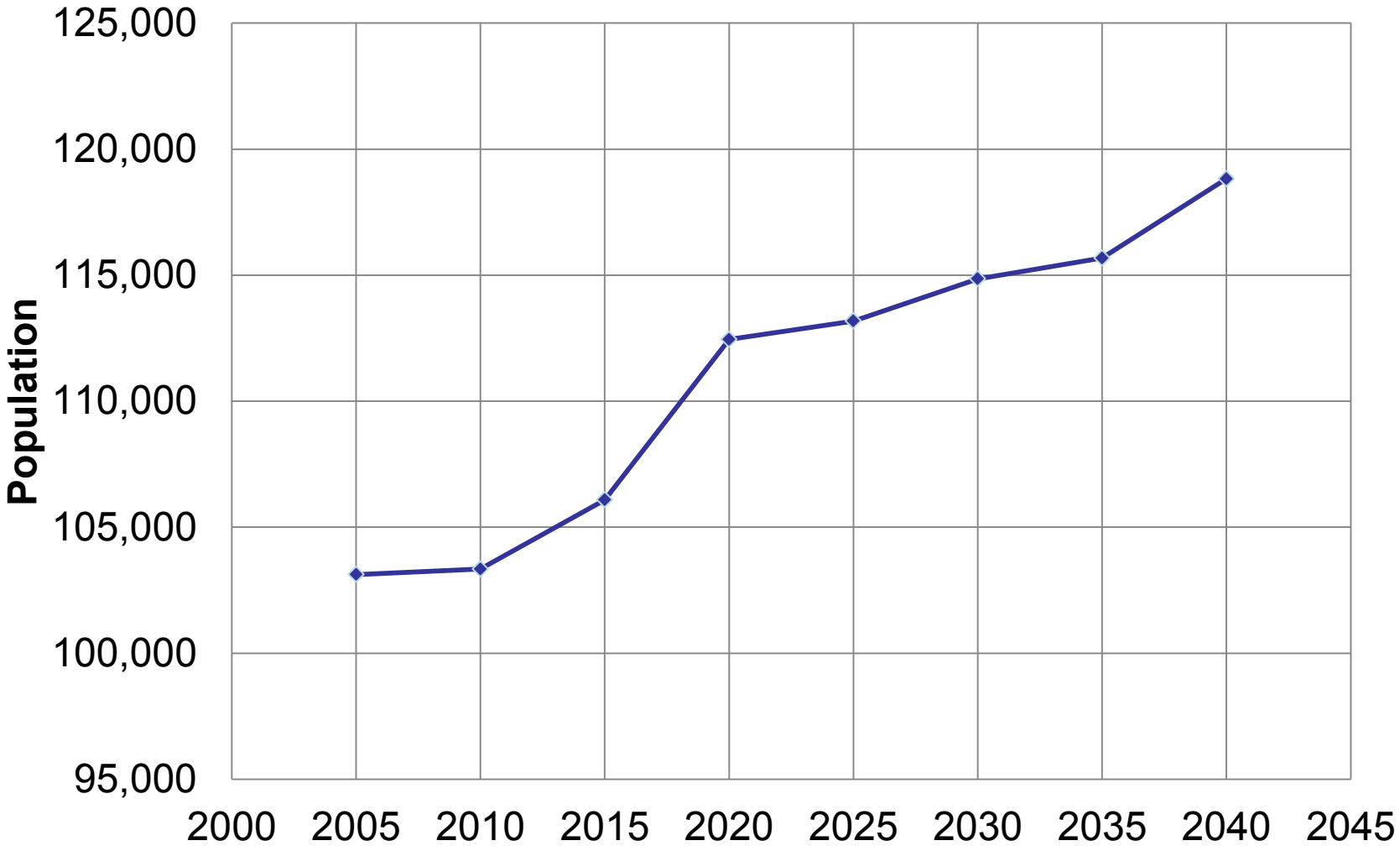
Plan Requirements

- Service Area Information
- System Demands
- System Supplies
- Water Recycling
- Water Supply Reliability
- Demand Management Measures
- **Water Loss**

Service Area Information

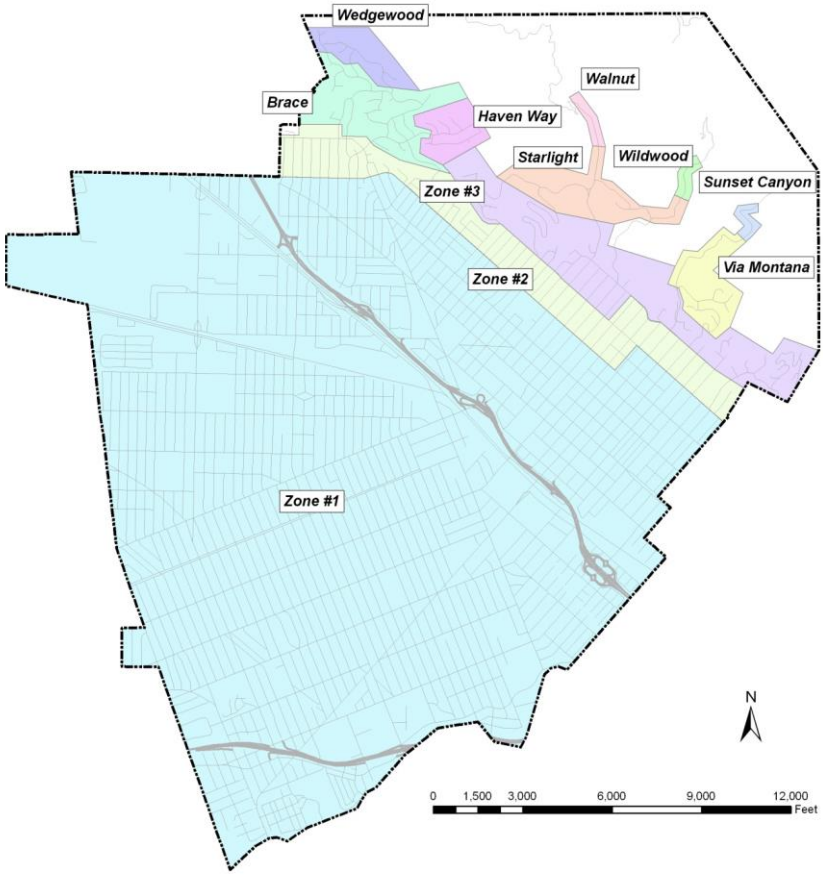
- Area: 17 Sq. Miles
- Population: 100,000 +
- Households: 45,000
- Businesses: 6,000
- Commercial/Industrial:
  - Media: Disney, Warner Bros.
  - Airport
  - Magnolia Power Project (MPP)

Burbank's Population



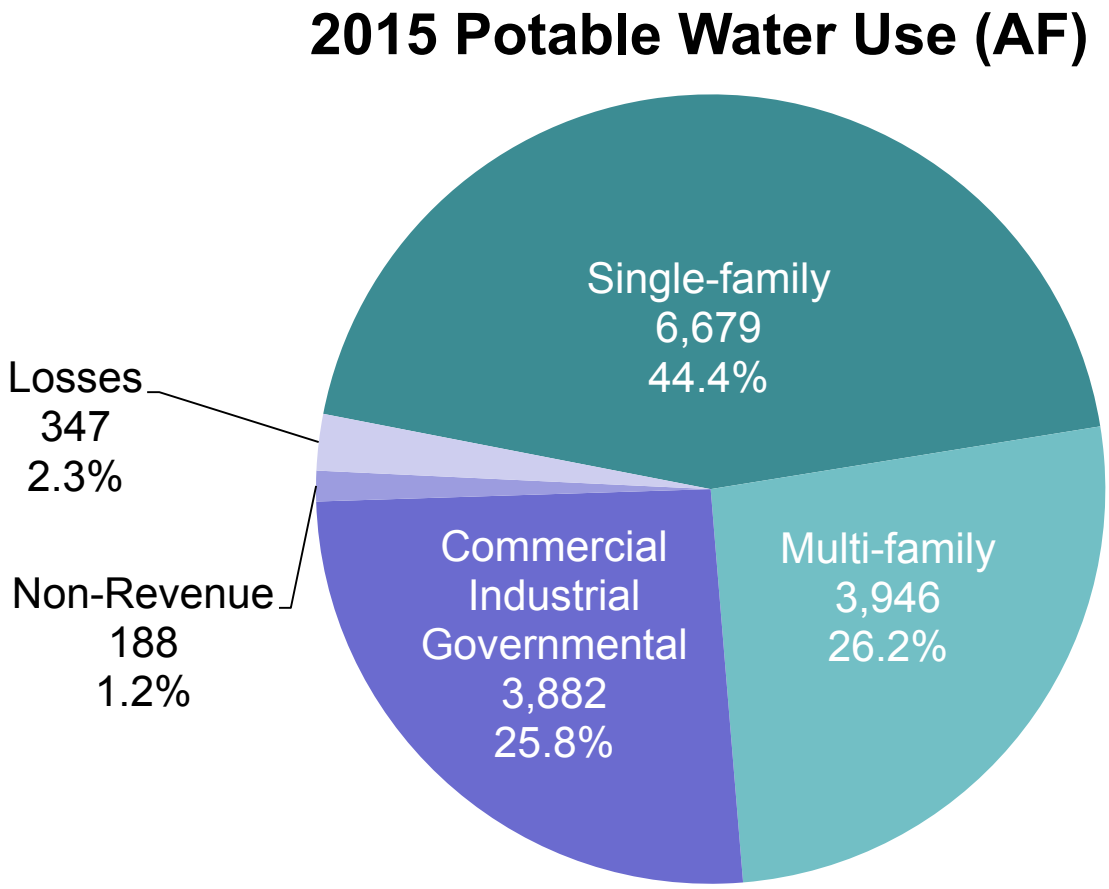
Potable System

- 286 Miles of Pipe
- 6,217 Valves
- 1,844 Hydrants
- 35 Boosters
- 5 MWD Connections
- 11 Pressure Zones



Potable Water Pressure Zones

System Demands



- Total = 15,042 AF (4,902 MG)

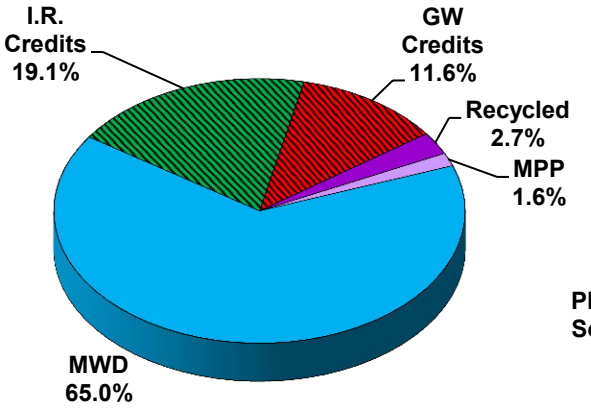
Burbank's Water Resources

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA 1928

Water Resources

- Increase in Recycled Water Use
- 20% Reduction from Baseline Use by 2020

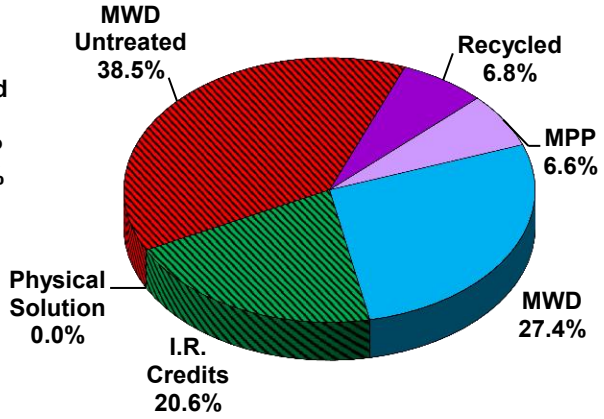
2005



Total: 22,835 AF

Potable: 21,839 AF

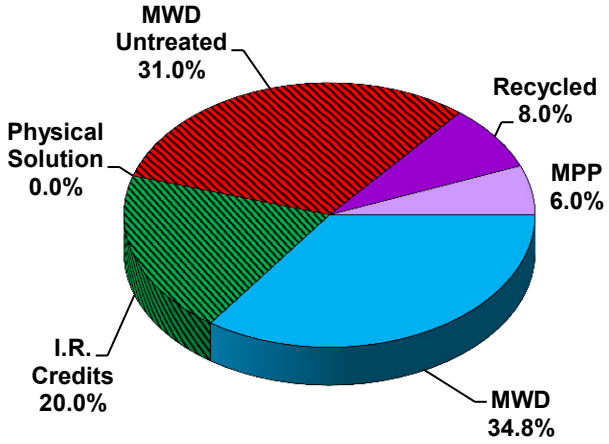
2015



Total: 17,381 AF

Potable: 15,042 AF

2020



Total: 21,641 AF

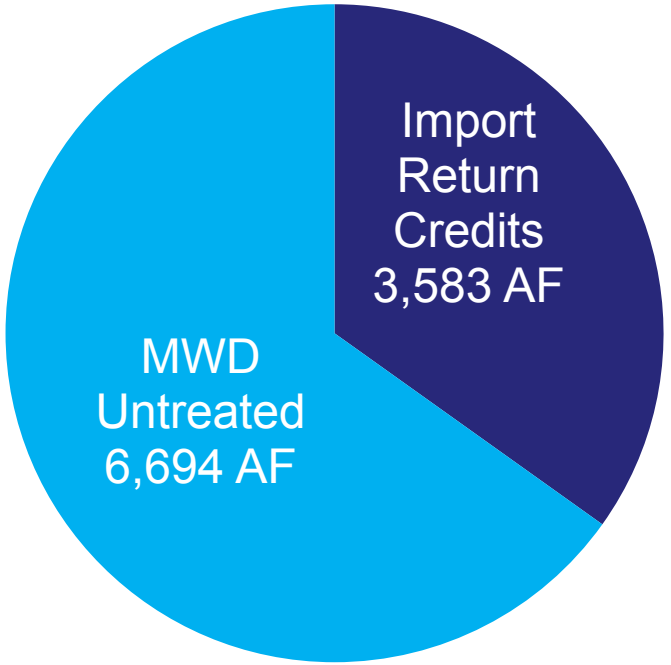
Potable: 18,481 AF

2020 Urban Water Use Target

- 10-year base period (1997-2006)
- Base Use = 197 gpcd
- **2020 Target = 157 gpcd**
- 2015 Interim Target = 177 gpcd
- 2015 Actual Water Use = 127 gpcd

Potable Water Supplies

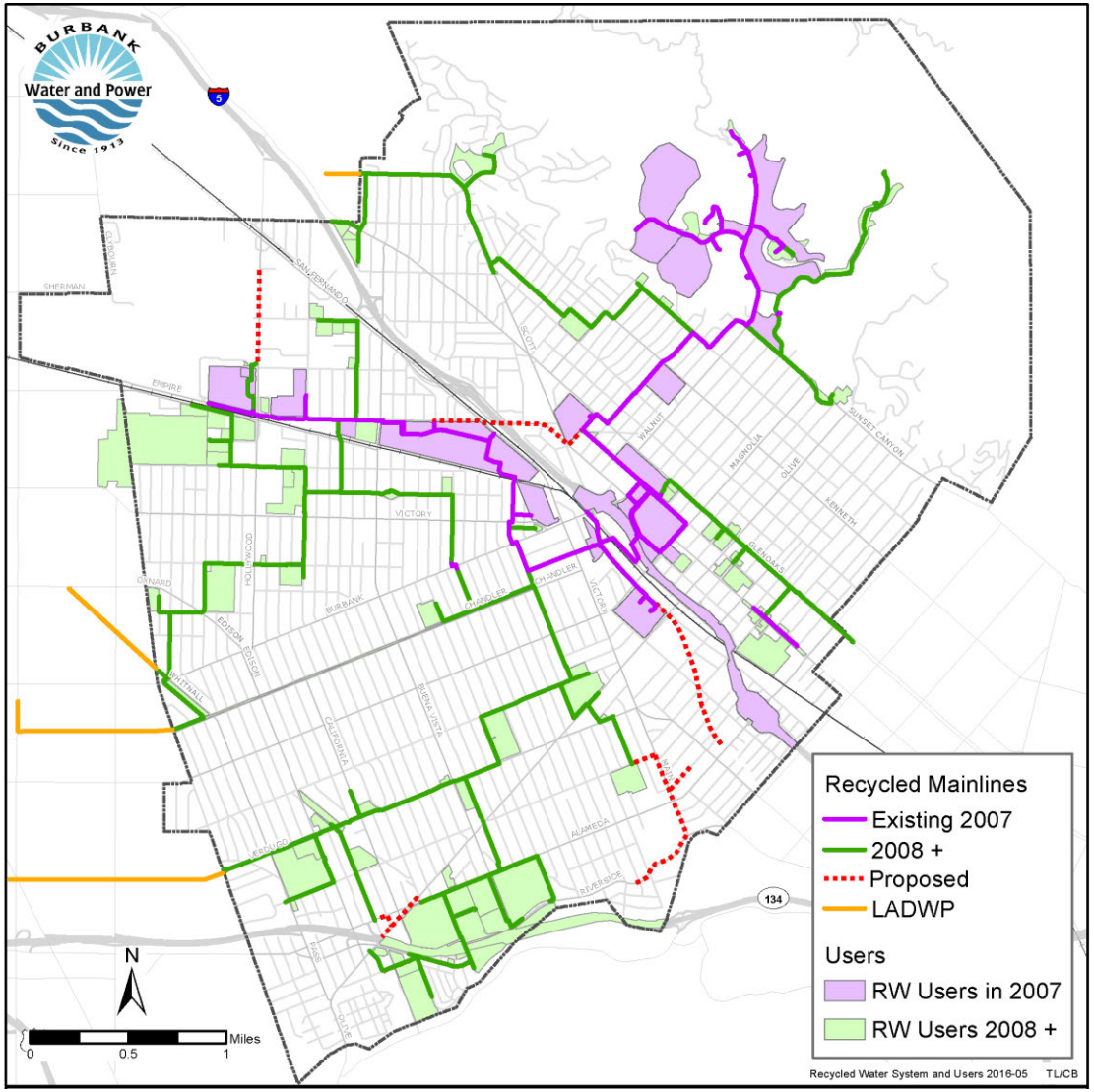
- MWD Treated 30% / Groundwater 70%
- Groundwater (BOU)
  - Import Return Credits
  - Replenishment
  - Physical Solution
  - Other Exchanges



2015 Groundwater Credit Mix

Recycled Water System

- >110 sites
- >2,300 AF Annual Deliveries
- Most Burbank Parks and BUSD Schools + Valhalla
- Street Sweepers and Construction Sites



Burbank's Recycled Water

- Sustainable potable water conservation
- Reduces GHG Emissions
- Uses an existing resource
- Drought proof
- Reduces potable water expenses
- Will approach 15% of our water supply

Water Supply Reliability

- MWD Potable Water
- Groundwater
  - Nitrate
  - Chromium-6
  - 1,4 - Dioxane
- MWD Replenishment Water
- Recycled Water
  - TDS/salts

Demand Management Measures

- Sustainable Water Use Ordinance
- Home Improvement Program
- Retrofit on Resale Ordinance
- Business Bucks Program
- Tiered Water Rates
- California Friendly Landscape Classes

Water Loss Audit

- AWWA Guidance
  - Apparent Losses
    - Unauthorized Consumption
    - Meter Inaccuracies
    - Default value of 0.25%
  - Real Losses
    - Leaks
    - Overflows
- **BWP's Total Unaccounted Water is 2.3%**

Summary

- Plan meets statutory requirements
- 2020 water use target of 157 gpcd
- 2015 water use at 127 gpcd
- Efficient use ensured by:
  - Everyday water conservation practices
  - Water system maintenance
  - Maximizing recycled water use

Summary (cont.)

- Water supplies to meet our needs through at least 2040
- Groundwater supplies have some risk but can be replaced by MWD supplies
- Salt and Nutrient Management Plan will ensure future viability of recycled water supply

Recommendation

- Staff Requests City Council's Adoption of the 2015 Urban Water Management Plan

RESOLUTION NO. 16-28,848

A RESOLUTION OF THE COUNCIL OF THE CITY OF BURBANK ADOPTING THE 2015 URBAN WATER MANAGEMENT PLAN.

THE COUNCIL OF THE CITY OF BURBANK FINDS:

A. The Urban Water Management Planning Act (Water Code Section 10610 et seq.; hereinafter "the Act") mandates that every supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre feet of water annually, prepare and adopt an Urban Water Management Plan, the primary objectives of which are to evaluate water supplies and demands, including the reliability of supplies, to plan for the conservation and efficient use of water, and to prepare for water shortages.

B. The City of Burbank is an urban supplier of water providing water to a population of over 100,000 and is required to prepare and adopt an Urban Water Management Plan pursuant to the Act.

C. The Act provides that the Plan be reviewed and updated at least once every five years, in years ending in five and zero, and that the City make any changes or amendments to the Plan which are indicated by the review.

D. Any such changes or amendments to the Plan must be adopted by July 1, 2016, after public review and hearing, and filed with the California Department of Water Resources and the California State Library within thirty (30) days of adoption.

E. The City has prepared and circulated for public review a draft 2015 Urban Water Management Plan, which changes or amends the 2010 Plan.

F. A duly noticed public hearing regarding such changes or amendments to the Plan was held by the City Council on June 14, 2016.

THE COUNCIL OF THE CITY OF BURBANK RESOLVES:

1. The 2015 Urban Water Management Plan is hereby adopted and ordered filed with the City Clerk.

2. The General Manager of Burbank Water and Power is hereby authorized and directed to file the 2015 Urban Water Management Plan with the California Department of Water Resources and the California State Library within thirty (30) days after this date.

3. The City Clerk shall certify to the passage and adoption of this Resolution.

PASSED and ADOPTED this 14th day of June, 2016.

s/Jess A. Talamantes
Jess A. Talamantes
Mayor

Attest:

s/Zizette Mullins
Zizette Mullins, CMC, City Clerk

Approved as to Form:
Office of the City Attorney

By: s/Christopher Chwang
Christopher Chwang
Senior Assistant City Attorney

STATE OF CALIFORNIA)
CITY OF BURBANK) ss.
COUNTY OF LOS ANGELES)

I, Zizette Mullins, CMC, City Clerk of the City of Burbank, do hereby certify that the foregoing Resolution was duly and regularly passed and adopted by the Council of the City of Burbank at its regular meeting held on the 14th day of June, 2016, by the following vote:

AYES: Frutos, Gabel-Luddy, Gordon, Rogers and Talamantes.

NOES: None.

ABSENT: None.

s/Zizette Mullins
Zizette Mullins, CMC, City Clerk

CITY OF BURBANK - BWP

164 WEST MAGNOLIA BOULEVARD
P.O. BOX 631
BURBANK, CALIFORNIA 91503

WATER and POWER

TRANSMITTAL

To: California State Library
Government Publications Section
P.O. Box 942837
Sacramento, CA 94237-0001

Date: July 1, 2016
Project: 2015 Urban Water Management Plan

Attention: Coordinator,
Urban Water Management Plans

We are forwarding ☐

☒ Enclosed ☐ By Mail ☐ Picked up
☐ Under separate cover ☐ Hand deliver ☐

Reason:
☐ Per your request ☐ Per our conversation ☐ Approve and return
☒ For your information ☐ For review and comment ☐ Final for construction
☐ Approved as noted ☐

No. of Copies	Date	Drawing No.	Rev.	Description
1				2015 Urban Water Management Plan for the City of Burbank

Remarks:

Copies to:

Burbank Water and Power

By: Matt Elsner
818-238-3500

July 1, 2016

County of Los Angeles
Chief Executive Office
Kenneth Hahn Hall of Administration
500 W. Temple St.
Los Angeles, CA 90012

SUBJECT: CITY OF BURBANK 2015 URBAN WATER MANAGEMENT PLAN ADOPTION

The City of Burbank adopted its 2015 Urban Water Management Plan (UWMP) on June 14, 2016. Public involvement and comment was encouraged. California law specifically requires the water agency to submit a copy of the adopted 2015 UWMP to any city or county in which the supplier provides water no later than 30 days after adoption. This copy may be in an electronic format.

The adopted 2015 UWMP is available electronically on the Burbank Water and Power website at www.burbankwaterandpower.com.

If you would like more information or have any questions, please contact me at (818) 238-3500.

Sincerely,

Matthew Elsner P.E.
Principal Civil Engineer

L:\Clerical\Manager Documents\mace\letters-16\County UWMP Letter Final_7-1-16.docxCounty UWMP Letter.docx

c: Urban Water Management Plan File
Chron File

Exhibit B

Eff.: 7/3/09

ORDINANCE NO. 3761

AN ORDINANCE OF THE COUNCIL OF THE CITY OF BURBANK AMENDING ARTICLE 3 OF TITLE 8, CHAPTER 2 OF THE BURBANK MUNICIPAL CODE RELATING TO SUSTAINABLE WATER USE PRACTICES. 1504

City Attorney's Synopsis

This ordinance amends Article 3 of Title 8, Chapter 2 of the Burbank Municipal Code (formerly Article 3 of Chapter 30) which establishes procedures for implementing and enforcing sustainable water use practices. The ordinance applies to all users of potable water service and prescribes mandatory water use practices related to outdoor uses such as irrigation of outdoor landscaped areas, washing down of driveways and walkways, and use of evaporative coolers (misters). The ordinance also establishes mandatory restrictions on service of drinking water at restaurants, hotels and eating establishments if not requested by customers. Implementation of Stages II, III, IV, V or VI requires future action of the Council. Enforcement of restrictions of Stages II, III, IV, V or VI, if ever adopted, would be by issuance of administrative citations pursuant to section 1-1-108.1 of the Burbank Municipal Code

THE COUNCIL OF THE CITY OF BURBANK FINDS:

A The City of Burbank (City) owns and operates a municipal water system that provides potable water to retail customers in the community through its municipal utility department known as Burbank Water and Power.

B. The City's primary sources of water are locally produced ground water, and water imported from the State Water Project and the Colorado River by the Metropolitan Water District.

C. It is desirable and in the best interests of the water users within Burbank's City limits to conserve and protect existing water supplies against waste and unreasonable uses.

D. Water supply conditions exist from time to time that may require the reduction of the community's consumption of water.

E. A Sustainable Water Use Ordinance encompassing mandatory conservation measures to reduce water use will best achieve the goals of conserving the water supply and avoiding wasteful uses, without unnecessary adverse economic consequences.

THE COUNCIL OF THE CITY OF BURBANK DOES ORDAIN AS FOLLOWS:

1. Article 3 of Title 8, Chapter 2 of the Burbank Municipal Code is amended in its entirety to read as follows:

Sec. 8-2-301. Short Title.

This article shall be known and may be cited as the "Sustainable Water Use Ordinance."

Sec. 8-2-302. Statement of Policy and Purpose

(a) Policy. It is desirable and in the general welfare of the City that the water resources available to the City be put to maximum beneficial use to the extent possible and that waste, unreasonable use or unreasonable method of use be prevented, and that conservation of such water resources be exercised in a reasonable and beneficial manner for the residents and businesses of Burbank.

(b) Purpose. Conditions may arise from time to time that will limit the water supply to the City. This article provides procedures to reduce water use citywide and thereby mitigate the effect of a shortage of water resources. Through the use of incremental stages, as appropriate for prevailing conditions, this article provides for increasing levels of water use restrictions and penalties in order to discourage wasteful water use practices and achieve reduced water consumption.

Sec. 8-2-303. Application.

(a) The provisions of this article shall apply to all users of potable water service in the City, with the exceptions set forth in subsections (b) and (c) of this section.

(b) This article shall not apply to uses of water necessary to protect public health and safety or for essential public services such as police, fire, or sanitation

(c) This article shall not apply to use of recycled water.

Sec. 8-2-304. Sustainable Water Use Stages.

The water use restrictions imposed by this article shall be implemented in six stages. Stage I, consisting of sustainable water use measures that will be in place at all times, shall take effect immediately on the effective date of the ordinance enacting this article Stages II, III, IV, V and VI shall require subsequent action of the City Council pursuant to section 8-2-305. The six stages are as follows:

(a) Stage I. In Stage I, water users shall follow these sustainable water use practices:

(1) Do not water outdoor landscaped areas on rainy days and at least two days thereafter.

(2) Do not water outdoor landscaped areas between the hours of 9:00 a.m. to 6:00 p.m. except by use of attended hand-watering, or for very short periods of time for the express purpose of adjusting or repairing an irrigation system

(3) Adjust sprinklers and irrigation systems to eliminate overspray and avoid run-off into streets, sidewalks, parking lots, alleys or other paved surfaces.

(4) Do not hose or wash driveways, patios, sidewalks, or other hard or paved surfaces except when necessary to alleviate safety or sanitary hazards, and then only by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off device, or a low-volume, high-pressure cleaning machine equipped to recycle any water used.

(5) Promptly repair all leaks from plumbing fixtures and irrigation systems, including but not limited to sprinkler systems.

(6) When washing vehicles, use a hand-held bucket or similar container or a hand-held hose equipped with a positive self-closing water shut-off device. This subsection does not apply to any commercial car washing facility.

(7) Do not serve drinking water, unless specifically requested by the customer, in all restaurants, hotels, cafes, cafeterias or other public places where food is sold, served, or offered for sale.

(8) Hotels, motels and other commercial lodging establishments must provide customers the option of not having towels and linen laundered daily. Commercial lodging establishments must prominently display notice of this option in each bathroom using clear and easily understood language.

(9) Food preparation establishments such as restaurants or cafes, are prohibited from using non-water conserving dish wash spray valves

(10) Operating a water fountain or other decorative water feature that does not use re-circulated water is prohibited.

(11) Installation of single pass cooling systems is prohibited in buildings requesting new water service.

(12) Installation of non-re-circulating water systems is prohibited in new commercial conveyor car wash and new commercial laundry systems.

(13) Effective January 1, 2010, all commercial conveyor car wash systems and commercial laundry systems must have installed operational re-circulating water systems.

(b) Stage II. In Stage II, the conservation measures applicable in Stage I shall be augmented with the following additional mandatory measures:

(1) Do not water outdoor landscaped areas more than fifteen (15) minutes per day per station and no more than three (3) days per week during the months of April through October. Do not water outdoor landscaped areas more than fifteen (15) minutes per day per station and no more than one (1) day per week during the months of November through March. Regardless of month, areas watered with drip irrigation systems or with low-flow sprinkler heads that require additional spray time are exempt from the 15-minute time restriction of this requirement, but must comply with the number of days per week watering limit

(2) During the months of April through October, the three allowable irrigation days are Tuesdays, Thursdays and Saturdays. During the months of November through March, the one allowable irrigation day is Saturday. Irrigation will not be allowed any day outside of the requirement listed here.

(c) Stage III. In Stage III, all conservation measures applicable in Stage II shall apply, along with the following additional measures:

(1) During the months of April through October do not water outdoor landscaped areas more than fifteen (15) minutes per station and no more than two (2) days per week. Areas watered with drip irrigation systems or with low-flow sprinkler heads that require additional spray time are exempt from the 15-minute time restriction of this requirement, but must comply with the limit of two days per week watering requirement. The two allowable irrigation days are Tuesdays and Saturdays. Irrigation will not be allowed any day outside of Tuesday or Saturday.

(2) Do not use outdoor evaporative cooling devices (for example, misters).

(3) The prohibition on watering outdoor landscaped areas between the hours of 9:00 a.m. to 6:00 p.m. extends to include attended hand-watering

(4) Cover all swimming pools, wading pools, or spas when not in use with acceptable protection designed to decrease water evaporation

(d) Stage IV. In Stage IV, all conservation measures applicable in Stage III shall apply, along with the following additional measures:

(1) Do not water outdoor landscaped areas more than fifteen (15) minutes per station and no more than one (1) day per week. Areas watered with drip irrigation systems or with low-flow sprinkler heads that require additional spray time are exempt from the 15-minute time restriction of

this requirement, but must comply with the limit of one day per week watering requirement The one allowable irrigation day is Saturday. Irrigation will not be allowed any day outside of Saturday.

(e) Stage V. In Stage V, all conservation measures applicable in Stage IV shall apply, along with the following additional measures:

(1) Deep irrigation of trees and shrubs only, two (2) days per month, 20 minutes per watering station The two allowable deep irrigation days are the first and third Saturdays of each calendar month. Irrigation will not be allowed any day outside of these two Saturdays.
(2) No new or upgraded potable water service will be permitted, excepting R-1 and R-2 zones, unless a building permit has already been issued.

(f) Stage VI. In Stage VI, all conservation measures applicable in Stage V shall apply, along with the following additional measures:

(1) Do not water outdoor landscaped areas at any time.

Sec. 8-2-305. Implementation of Sustainable Water Use Stages.

The sustainable water use practices provided for in section 8-2-304 shall be declared by resolution of the City Council. Before adopting any such resolution, the City Council shall hold a public hearing when required by Water Code section 350 or other applicable law. Any such resolution shall contain findings in support of the City Council's decision to impose any sustainable water use practices, and such findings or other determinations as may be required to comply with the California Environmental Quality Act.

Sec. 8-2-306. Enforcement

Any violation of this article shall be subject to enforcement by issuance of an administrative citation pursuant to section 1-1-108.1 of this Code Prior to issuance of an administrative citation, the City shall give one courtesy notice requesting voluntary correction of the violation. The General Manager of Burbank Water and Power, or his or her designee, may enter into a written agreement with a customer to resolve any violation provided that such agreement is consistent with the purpose and intent of this article.

2. If any phrase, section, sentence, or word of this Ordinance is held invalid by a court of competent jurisdiction, such invalidity shall not affect any other phrase, section, sentence, or word of the Ordinance that can be given effect without the invalid phrase, section, sentence, or word, and to this end each phrase, section, sentence, or word of this Ordinance is declared to be severable.

3. The proposed project is exempt from environmental review under the California Environmental Quality Act (CEQA) pursuant to State CEQA Guidelines Section 15061(b)(3) as it can be seen with certainty that there is no possibility that the proposed project would have an environmental impact. The proposed practices would conserve and protect existing water supplies through small-scale improvements and efforts that would not result in any environmental impacts. The project is further exempt from environmental review pursuant to State CEQA Guidelines Section 15301 relating to the repair, maintenance, or minor alteration of existing public and private structures or facilities involving negligible or no expansion of use and Section 15304 relating to the minor public or private alterations in the condition of land, water, and/or vegetation. Water conservation practices No. 1-8 would conserve and protect existing water supplies by regulating the time and manner of certain water use and methods of application of water for certain uses, require that plumbing fixtures and irrigation systems be in working order to avoid the unnecessary use of water, and provide the general public with opportunities to conserve at local businesses. Water conservation practices No. 9-13 involve minor alterations to existing buildings and facilities. with no expansion of structures or uses, that would conserve and protect existing water supplies. The Community Development Director or her designee, shall execute and cause a Notice of Exemption to be filed with the County Clerk of the County of Los Angeles pursuant to the California Environmental Quality Act.

4. The City Clerk shall certify to the passage of this Ordinance and cause it to be published once in a newspaper of general circulation, published and circulated within (14) days of adoption, in the City of Burbank, California.

5. This Ordinance shall become effective at 12:01 a.m. of the thirty-first day after adoption.

PASSED AND ADOPTED this 2nd day of June, 2009.

Gary Bric
Mayor of the City of Burbank

Attest

Margarita Campos, CMC, City Clerk

Approved as to Form and Legal Content
Dennis A Barlow, City Attorney

By: _____
Richard J. Morillo
Senior Assistant City Attorney

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) ss.
CITY OF BURBANK)

I, Margarita Campos, CMC, City Clerk of the City of Burbank, do hereby certify that the foregoing Ordinance No. 3761 was duly and regularly passed and adopted by the Council of the City of Burbank at its regular meeting held on the 2nd day of June, 2009, by the following vote:

AYES: Council Members Golonski, Reinke, Talamantes and Bric.

NOES: Council Member Gordon.

ABSENT: Council Members None.

I further certify that said Ordinance was published as required by law in a newspaper of general circulation in the City of Burbank, California on the 10th day of June, 2009.

Margarita Campos
Margarita Campos, CMC, City Clerk

ARTICLE 3. SUSTAINABLE WATER USE ORDINANCE

8-2-301: SHORT TITLE:

This article shall be known and may be cited as the “Sustainable Water Use Ordinance.” [Added by Ord. No. 3737, eff. 5/23/08; Amended by Ord. No. 3761, eff. 7/3/09.]

8-2-302: STATEMENT OF POLICY AND PURPOSE:

A. Policy. It is desirable and in the general welfare of the City that the water resources available to the City be put to maximum beneficial use to the extent possible and that waste, unreasonable use or unreasonable method of use be prevented, and that conservation of such water resources be exercised in a reasonable and beneficial manner for the residents and businesses of Burbank.

B. Purpose. Conditions may arise from time to time that will limit the water supply to the City. This article provides procedures to reduce water use citywide and thereby mitigate the effect of a shortage of water resources. Through the use of incremental stages, as appropriate for prevailing conditions, this article provides for increasing levels of water use restrictions and penalties in order to discourage wasteful water use practices and achieve reduced water consumption. [Added by Ord. No. 3737, eff. 5/23/08; Amended by Ord. No. 3761, eff. 7/3/09.]

8-2-303: APPLICATION:

A. The provisions of this article shall apply to all users of potable water service in the City, with the exceptions set forth in subsections (b) and (c) of this section.

B. This article shall not apply to uses of water necessary to protect public health and safety or for essential public services such as police, fire, or sanitation.

C. This article shall not apply to use of recycled water. [Added by Ord. No. 3737, eff. 5/23/08; Amended by Ord. No. 3761, eff. 7/3/09.]

8-2-304: SUSTAINABLE WATER USE STAGES:

The water use restrictions imposed by this article shall be implemented in six stages. Stage I, consisting of sustainable water use measures that will be in place at all times, shall take effect immediately on the effective date of the ordinance enacting this article. Stages II, III, IV, V and VI shall require subsequent action of the City Council pursuant to section 8-2-305. The six stages are as follows:

A. Stage I. In Stage I, water users shall follow these sustainable water use practices:

(1) Do not water outdoor landscaped areas on rainy days and at least two days thereafter.

(2) Do not water outdoor landscaped areas between the hours of 9:00 a.m. to 6:00 p.m. except by use of attended hand-watering, or for very short periods of time for the express purpose of adjusting or repairing an irrigation system.

(3) Adjust sprinklers and irrigation systems to eliminate overspray and avoid run-off into streets, sidewalks, parking lots, alleys or other paved surfaces.

(4) Do not hose or wash driveways, patios, sidewalks, or other hard or paved surfaces except when necessary to alleviate safety or sanitary hazards, and then only by use of a hand-held bucket or similar container, a high pressure, low volume spray hose using only potable water with no cleaning agents at an average water usage of 0.006 gallons per square feet of sidewalk area in accordance with Resolution No. 98-08 issued by the Los Angeles Regional Water Quality Control Board, or a low-volume, high-pressure cleaning machine equipped to recycle any water used.

(5) Promptly repair all leaks from plumbing fixtures and irrigation systems, including but not limited to sprinkler systems.

(6) When washing vehicles, use a hand-held bucket or similar container or a hand-held hose equipped with a positive self-closing water shut-off device. This subsection does not apply to any commercial car washing facility.

(7) Do not serve drinking water, unless specifically requested by the customer, in all restaurants, hotels, cafes, cafeterias or other public places where food is sold, served, or offered for sale.

(8) Hotels, motels and other commercial lodging establishments must provide customers the option of not having towels and linen laundered daily. Commercial lodging establishments must prominently display notice of this option in each bathroom using clear and easily understood language.

(9) Food preparation establishments, such as restaurants or cafes, are prohibited from using non-water conserving dish wash spray valves.

(10) Operating a water fountain or other decorative water feature that does not use re-circulated water is prohibited.

(11) Installation of single pass cooling systems is prohibited in buildings requesting new water service.

(12) Installation of non-re-circulating water systems is prohibited in new commercial conveyor car wash and new commercial laundry systems.

(13) Effective January 1, 2010, all commercial conveyor car wash systems and commercial laundry systems must have installed operational re-circulating water systems.

B. Stage II. In Stage II, the conservation measures applicable in Stage I shall be augmented with the following additional mandatory measures:

(1) Do not water outdoor landscaped areas more than fifteen (15) minutes per day per station and no more than three (3) days per week during the months of April through October. Do not water outdoor landscaped areas more than fifteen (15) minutes per day per station and no more than one (1) day per week during the months of November through March. Regardless of month, areas watered with drip irrigation systems or with low-flow sprinkler heads that require additional spray time are exempt from the 15-minute time restriction of this requirement, but must comply with the number of days per week watering limit.

(2) During the months of April through October, the three allowable irrigation days are Tuesdays, Thursdays and Saturdays. During the months of November through March, the one allowable irrigation day is Saturday. Irrigation will not be allowed any day outside of the requirement listed here.

C. Stage III. In Stage III, all conservation measures applicable in Stage II shall apply, along with the following additional measures:

(1) During the months of April through October do not water outdoor landscaped areas more than fifteen (15) minutes per station and no more than two (2) days per week. Areas watered with drip irrigation systems or with low-flow sprinkler heads that require additional spray time are exempt from the 15-minute time restriction of this requirement, but must comply with the limit of two days per week watering requirement. The two allowable irrigation days are Tuesdays and Saturdays. Irrigation will not be allowed any day outside of Tuesday or Saturday.

(2) Do not use outdoor evaporative cooling devices (for example, misters).

(3) The prohibition on watering outdoor landscaped areas between the hours of 9:00 a.m. to 6:00 p.m. extends to include attended hand-watering.

(4) Cover all swimming pools, wading pools, or spas when not in use with acceptable protection designed to decrease water evaporation.

D. Stage IV. In Stage IV, all conservation measures applicable in Stage III shall apply, along with the following additional measures:

(1) Do not water outdoor landscaped areas more than fifteen (15) minutes per station and no more than one (1) day per week. Areas watered with drip irrigation systems or with low-flow sprinkler heads that require additional spray time are exempt from the 15-minute time restriction of this requirement, but must comply with the limit of one day per week watering requirement. The one allowable irrigation day is Saturday. Irrigation will not be allowed any day outside of Saturday.

E. Stage V. In Stage V, all conservation measures applicable in Stage IV shall apply, along with the following additional measures:

(1) Deep irrigation of trees and shrubs only, two (2) days per month, 20 minutes per watering station. The two allowable deep irrigation days are the first and third Saturdays of each calendar month. Irrigation will not be allowed any day outside of these two Saturdays.

(2) No new or upgraded potable water service will be permitted, excepting R-1 and R-2 zones, unless a building permit has already been issued.

F. Stage VI. In Stage VI, all conservation measures applicable in Stage V shall apply, along with the following additional measures:

(1) Do not water outdoor landscaped areas at any time. [Added by Ord. No. 3737, eff. 5/23/08; Amended by Ord. No. 13-3,848, eff. 1/17/14; 3761.]

8-2-305: IMPLEMENTATION OF SUSTAINABLE WATER USE STAGES:

The sustainable water use practices provided for in section 8-2-304 shall be declared by resolution of the City Council. Before adopting any such resolution, the City Council shall hold a public hearing when required by Water Code section 350 or other applicable law. Any such resolution shall contain findings in support of the City Council's decision to impose any sustainable water use practices, and such findings or other determinations as may be required to comply with the California Environmental Quality Act. [Added by Ord. No. 3737, eff. 5/23/08; Amended by Ord. No. 3761, eff. 7/3/09.]

8-2-306: ENFORCEMENT:

Any violation of this article shall be subject to enforcement by issuance of an administrative citation pursuant to section 1-1-108.1 of this Code. Prior to issuance of an administrative citation, the City shall give one courtesy notice requesting voluntary correction of the violation. The General Manager of Burbank Water and Power, or his or her designee, may enter into a written agreement with a customer to resolve any violation provided that such agreement is consistent with the purpose and intent of this article. [Added by Ord. No. 3737,eff. 5/23/08; amended by Ord. No. 3761, eff. 7/3/09.]

State law reference: As to Public Utility Commission regulation of water distributors to municipalities, see Pub.Util.C. §§ 2702, 2703. As to authority of a municipality to operate public utilities, see Pub.Util.C. § 10001 et seq. As to acquisition of water and facilities by municipalities, see Gov.C. § 13000 et seq. and Health & S.C. § 25249.5.

State law reference: As to fixing distribution rates of water, see Const. Art. XI, § 9.

FOR IMMEDIATE RELEASE

BURBANK LIMITS LANDSCAPE IRRIGATION TO THREE DAYS PER WEEK

Burbank, CA (July 25, 2014) On July 22, in response to the state's dire drought and the July 14 adoption of emergency water saving regulations made by the California State Water Board, the Burbank City Council voted 5-0 to activate Stage II of the Burbank Sustainable Water Use Ordinance. This action limits landscape watering in the city of Burbank to Tuesdays, Thursdays and Saturdays and for no more than 15 minutes each day for each irrigation station.

Following three dry years in California and with 80 percent of the state experiencing extreme drought conditions, Governor Brown issued a drought emergency proclamation in January and called for 20% reductions in water use by California's citizens.

On July 15, the California State Water Board adopted emergency regulations that require urban water suppliers, such as the City of Burbank, to implement mandatory restrictions on outdoor water use, effective August 1, 2014. Per the State Water Board regulations, water suppliers that do not have water shortage contingency plans in place would have to limit landscape irrigation to two days per week.

In 2009, Burbank adopted the Sustainable Water Use Ordinance to help Burbank best manage this most precious of resources. The Ordinance has six Stages, each with progressively restrictive uses of water that could be required due to water supply constraints. Stage 1 is always in effect and includes prudent water-saving actions, such as not watering on rainy days or while the sun is out, not hosing down driveways, patios and other hardscape surfaces, and repairing plumbing and irrigation leaks promptly. Stages II through VI progressively limit the use of potable water for irrigation.

Stage II of Burbank's Sustainable Water Use Ordinance, which will be in effect as of August 1, limits potable landscape irrigation to no more than 15 minutes/day/station and no more than three days per week during April through October (limited to Tuesdays, Thursdays, and Saturdays), and no more than one day per week during November through March (limited to Saturdays).

Most of the water being used in Southern California is coming from storage and about half the water goes to watering landscape. Limiting landscape watering helps extend the availability of stored water to help us through this current drought.

Landscape professionals have long cited a three day landscape irrigation schedule as more than sufficient to maintain healthy plants and lawns. In fact, over-watering can lead to less hearty plants.

“Three days a week works. We proved that in the last drought when this schedule was required in Burbank and we didn’t see brown lawns. It’s a waste to send us your money for water that’s not really needed, and needlessly use up the water we have in storage” said Ron Davis, Burbank Water and Power General Manager.

About Burbank Water and Power
BWP is a community owned utility serving the City of Burbank since 1913 with safe, reliable, affordable, and sustainable electric and water service. A leader in energy policy, BWP was the first utility in America to commit to 33% renewable energy attainment by 2020 and boasts among the highest electric reliability numbers in the country.

Contact:

Joe Flores
Public Information Officer
JLFlores@burbankca.gov
(818) 238-3773

CITY OF BURBANK

BURBANK WATER AND POWER

STAFF REPORT

DATE: May 14, 2015

TO: Mark Scott, City Manager

FROM: Ronald Davis, General Manager - BWP

SUBJECT: Implementation of Stage III of the Sustainable Water Use Ordinance

RECOMMENDATION

Adopt a resolution entitled A RESOLUTION OF THE COUNCIL OF THE CITY OF BURBANK IMPLEMENTING STAGE III OF THE SUSTAINABLE WATER USE ORDINANCE.

BACKGROUND

In 2009, Burbank adopted the Sustainable Water Use Ordinance (Title 8, Chapter 2, Article 3 of the Burbank Municipal Code) to establish procedures for the maximum beneficial use of water. The Ordinance includes six Stages, each with progressively restrictive uses of water. Stage I is always in effect and includes prudent water saving actions, such as not watering on rainy days or while the sun is out, not hosing down driveways, patios and other hardscape surfaces, and repairing plumbing and irrigation leaks promptly. Stages II through VI progressively limit the use of potable water for irrigation:

- Stage II: Limit potable landscape irrigation to no more than 15 minutes/day/station and no more than three days per week during April through October (limited to Tuesdays, Thursdays, and Saturdays), and no more than one day per week during November through March (limited to Saturdays).
- Stage III: Limits April through October months to no more than two days per week, on Tuesdays and Saturdays.
- Stage IV: Throughout the year, no more than one day per week landscape irrigation allowed, on Saturdays.
- Stage V: Deep irrigation of trees and shrubs only, no more than two days per week (the first and third Saturday of each month), up to 20 minutes per watering station.
- Stage VI: No potable watering of outdoor landscape at any time.

On July 22, 2014, the City Council adopted a Resolution to implement Stage II of the Sustainable Water Use Ordinance. This was in response to the July 15, 2014 California State Water Board emergency regulations requiring urban water suppliers, such as the City of Burbank, to implement by August 1, 2014 their Water Shortage Contingency Plans at a level that triggered mandatory restrictions on outdoor water use or be directed to limit outdoor water use to two days per week.

Staff is now recommending that Stage III of the Ordinance be implemented, effective June 1, 2015.

DISCUSSION

The state of California remains in the midst of a record-setting four year drought with no assurance that the next winter season will see it end. Over the past 20 years, the Metropolitan Water District of Southern California (MWD) and its Member Agencies, including the City of Burbank, have made significant investments to create storage facilities and store water for future times of drought and other emergencies. The City of Burbank and others in the region have been living off of that stored water and sustaining "normal" water use for the past three years. Water rationing has not occurred in Burbank and Southern California because of this storage.

Over the past four weeks, much has transpired in California related to the drought:

April 1, 2015 – Executive Order Issued. Governor Brown issued an Executive Order (B-29-15) mandating a 25% statewide reduction in potable urban water use through February 2016. There is a provision for extending the reduction dependent upon precipitation in the next winter season. The Governor's Executive Order limits potable water use well below what is covered by MWD's Water Supply Allocation Plan and contains provisions to fine Water Agencies by up to $10,000/day for not meeting the water use reduction goals established by the State Water Resources Control Board for each Water Agency.

April 14, 2015 – MWD Allocations. The MWD Board voted to implement the Water Supply Allocation Plan at a Stage III or 15% reduction in retail supplies. Water agencies exceeding a draw on MWD supplies above the Agency allocation would pay substantial penalties (up to 400%, $2,960/acre foot) for excess water. Burbank is well positioned through prior Council and community conservation actions to avoid these penalties.

April 18, 2015 – State Water Board Issues Conservation Requirements for Water Agencies. The Governor's Executive Order directed the State Water Resources Control Board to impose restrictions on water agencies to achieve the statewide 25% reduction in potable urban water use through February 2016. The City of Burbank was assigned a 28% reduction requirement. It must be made clear that this is a cumulative volumetric reduction of 28% for the period June 2015 through February 2016, measured against water production in the period June 2013 through February 2014. Reductions not achieved in June rollover to July, etc. Burbank achieved 7% of this goal in the period June 2014 through February 2015. The

remaining 21%, one billion gallons, must be accomplished before the end of February 2016, starting June 1, 2015.

April 21, 2015 – Drought Update and Potential Water Conservation Measures Report to Council. Given the length and severity of the drought, in concert with the drawdown of stored water across the last three years, staff recommended three actions:

1. Scheduling a Public Hearing to implement Stage III of the Sustainable Water Use Ordinance;
2. Establish fines for large Commercial, Industrial and Institutional customers not compliant with recycled water conversions; and
3. To immediately begin issuing fines provided for in the Sustainable Water Use Ordinance to those ignoring repeated outreach related to prohibited water waste practices.

Staff was directed by the City Council to schedule the Public Hearing as quickly as possible, to bring back an Ordinance related to recycled water fines, and to begin issuance of water waste fines.

Stage III of Burbank's Sustainable Water Use Ordinance expands from Stages I and II and includes these four additional requirements:

1. Landscape irrigation during April through October is limited to no more than two days per week, on Tuesdays and Saturdays. One day per week landscape watering on Saturdays, as provided for in Stage II of the Ordinance, remains unchanged during Stage III for the cooler months of November through March.
2. Do not use outdoor evaporative cooling devices (for example, misters).
3. The prohibition on watering outdoor landscaped areas between the hours of 9:00 a.m. to 6:00 p.m. extends to include attended hand-watering.
4. Cover all swimming pools, wading pools, or spas when not in use with acceptable protection designed to decrease water evaporation.

FISCAL IMPACT

The City of Burbank could be subject to State Water Resources Control Board fines of up to $10,000 per day if we do not achieve the required 28% reduction in water use by the end of February 2016.

CONCLUSION

Both Burbank's state-mandated water reduction goal of 28% and the threat of daily fines of $10,000 are daunting. Once again, this is a cumulative volumetric goal for the period of June 1, 2015 through February 28, 2016. We have an exceedingly short window to achieve reductions in use by June 1, 2015 to meet the goal and avoid fines.

BWP is hopeful that the goal can be achieved, but only if all sectors of the community do their part. This means reduced watering of landscaping, judicious and sensible water use in the home, maximizing the use of recycled water where it can permanently displace potable water use, continuing education and assistance in changing water use, and finally, enforcement where other alternatives have not succeeded. As previously stated, Burbank has already achieved a 7% reduction against the 28% requirement. The remaining 21%, one billion gallons, must be accomplished before the end of February 2016. The following table details where staff believes water use reductions can be achieved. Enforcement of restrictions already in place accounts for about one-third of the necessary reduction. Reductions not achieved in one segment would need to be made up in other segments in order to achieve the mandated goal.

Water Use Reduction Percentage Estimates		
Measure	**Range of Percent Savings**	**Range of Potable Water Reductions (in Gallons)**
Sustainable Water Use Ordinance Stage III Restrictions	10% – 11%	471,000,000 - 518,000,000
Recycled Water Conversion Projects	2% - 3%	94,000,000 – 141,000,000
Enforcement of Water Waste Restrictions already in place	6% - 8%	283,000,000 – 377,000,000
Indoor Water Waste Behavioral Improvements	1% - 2%	47,000,000 – 94,000,000
Total Estimated Percent Savings	**19% - 24%**	**895,000,000 – 1,130,000,000**

As shown, the lion's share of the savings will come from landscape watering restrictions in moving to Stage III. To this end, City Council adoption of the Resolution to implement Stage III of the Sustainable Water Use Ordinance is required and staff urgently recommends adoption of the Resolution, which would go into effect June 1, 2015.

Exhibits

A – Resolution of the Council of the City of Burbank Implementing Stage III of the Sustainable Water Use Ordinance

B – Burbank's Sustainable Water Use Ordinance

FOR IMMEDIATE RELEASE
Drew Sugars
Public Information Officer
(818) 238-5849
dsugars@burbankca.gov

Burbank Orders Further Reductions in Water Use

City Council unanimously votes to implement Stage III of drought plan

BURBANK, Calif. (May 15, 2015) – California's four years of record setting drought has prompted Burbank City Council to vote 5-0 to increase water conservation efforts in light of dwindling water reserves.

Representatives of Burbank Water and Power, the City resident owned utility, gave a stark presentation of the water challenges facing residents during a special Council meeting that took place in Council Chambers Thursday night, May 14, 2015.

The City is under a directive to reduce water usage 28% following Governor Jerry Brown's Executive Order (B-29-15) in early April mandating drastic reduction in statewide potable urban water use. Previous efforts by Burbank residents have already resulted in 7% savings, but another 21% (one billion gallons) must be accomplished by the end of February, 2016 or the City may be fined up to $10,000 per day.

Council passed a resolution Thursday night to implement Stage III of the City's Sustainable Water Use Ordinance (Burbank Municipal Code Title 8, Chapter 2, Article 3) which was originally passed in 2009. Stage III includes the following expanded requirements:

- April-October landscape irrigation limited to two days per week (Tues & Sat.).
- No use of outdoor evaporative cooling devices (misters).
- Hand-watering now included in prohibition on watering outdoor landscaped areas between 9:00 a.m. - 6:00 p.m.
- All swimming pools, wading pools, spas must be covered with acceptable protection to decrease water evaporation.

The new rules take effect Monday, June 1, 2015. For a complete list of water restrictions imposed in Stages I and II of the Sustainable Water Use Ordinance, go here (https://www.burbankwaterandpower.com/water/water-drought).

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Appendix C

Required Data Tables in DWR Format

Table 2-1 Retail Only: Public Water Systems			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2015	Volume of Water Supplied 2015
1910179	Burbank, City of	26,661	15,042
	TOTAL	26,661	15,042
NOTES: Connections and volume are for drinking water system only (not recycled water system)			

Table 2-2: Plan Identification			
Select Only One	**Type of Plan**		**Name of RUWMP or Regional Alliance** *if applicable* *drop down list*
☑	**Individual UWMP**		
	☐	Water Supplier is also a member of a RUWMP	
	☐	Water Supplier is also a member of a Regional Alliance	
☐	**Regional Urban Water Management Plan (RUWMP)**		
NOTES:			

Table 2-3: Agency Identification	
Type of Agency (select one or both)	
☐	Agency is a wholesaler
☑	Agency is a retailer
Fiscal or Calendar Year (select one)	
☑	UWMP Tables Are in Calendar Years
☐	UWMP Tables Are in Fiscal Years
If Using Fiscal Years Provide Month and Date that the Fiscal Year Begins (mm/dd)	
Units of Measure Used in UWMP (select from Drop down)	
Unit	AF
NOTES:	

Table 2-4 Retail: Water Supplier Information Exchange
The retail supplier has informed the following wholesale supplier(s) of projected water use in accordance with CWC 10631.
Wholesale Water Supplier Name *(Add additional rows as needed)*
Metropolitan Water District of Southern California
NOTES: Burbank participated in the IRP update process

Table 3-1 Retail: Population - Current and Projected						
Population Served	2015	2020	2025	2030	2035	2040 *(opt)*
	106,084	112,451	113,179	114,850	115,680	118,821
NOTES: 2015 from DOF, others from MWD						

Table 4-1 Retail: Demands for Potable and Raw Water - Actual			
Use Type *(Add additional rows as needed)*	2015 Actual		
Drop down list *May select each use multiple times* *These are the only Use Types that will be recognized by the WUEdata online submittal tool*	Additional Description *(as needed)*	Level of Treatment When Delivered *Drop down list*	Volume
Single Family		Drinking Water	6,679
Multi-Family		Drinking Water	3,946
Other	Commercial/Industrial/Institutional/Governmental	Drinking Water	3,882
Losses	Difference between metered sales and metered amount into system ("non-revenue water" on audit form)	Drinking Water	535
Groundwater recharge	Untreated MWD water for direct recharge by Burbank or for delivery to LA treatment plant in exchange for groundwater credits	Raw Water	7,350
		TOTAL	22,392
NOTES:			

Table 4-2 Retail: Demands for Potable and Raw Water - Projected

Use Type *(Add additional rows as needed)* *Drop down list* *May select each use multiple times* *These are the only Use Types that will be recognized by the WUE data online submittal tool*	Additional Description *(as needed)*	Projected Water Use *Report To the Extent that Records are Available*				
		2020	2025	2030	2035	2040-opt
Single Family		8,481	8,061	7,817	7,543	7,412
Multi-Family		5,011	4,924	4,805	4,629	4,640
Other	Commercial/Industrial/Institutional/Governmental	4,930	4,938	4,939	4,884	4,818
Losses	Difference between metered sales and metered amount into system ("non-revenue water" on audit form)	472	460	450	437	433
Groundwater recharge	Untreated MWD water for direct recharge by Burbank or for delivery to LA treatment plant in exchange for groundwater credits	6,300	4,700	4,800	4,900	4,900
	TOTAL	25,194	23,083	22,811	22,393	22,203

NOTES: Groundwater recharge estimates depend on planned groundwater credits from LA in exchange for recycled water from Burbank: 300 AFY by 2020 and then 2000 AFY for 2025-2040. Without the LA credits, groundwater recharge amounts need to increase to make up the difference.

Table 4-3 Retail: Total Water Demands

	2015	2020	2025	2030	2035	2040 *(opt)*
Potable and Raw Water *From Tables 4-1 and 4-2*	22,392	25,194	23,083	22,811	22,393	22,203
Recycled Water Demand* *From Table 6-4*	2,463	3,327	5,047	5,047	5,047	5,047
TOTAL WATER DEMAND	24,855	28,521	28,130	27,858	27,440	27,250

**Recycled water demand fields will be blank until Table 6-4 is complete.*

NOTES:

Table 4-4 Retail: 12 Month Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss*
01/2015	347
** Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet.*	
NOTES:	

Table 4-5 Retail Only: Inclusion in Water Use Projections	
Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook) *Drop down list (y/n)*	Yes
If "Yes" to above, state the section or page number, in the cell to the right, where citations of the codes, ordinances, etc... utilized in demand projections are found.	MWD UWMP Appendix 6
Are Lower Income Residential Demands Included In Projections? *Drop down list (y/n)*	Yes
NOTES:	

Table 5-1 Baselines and Targets Summary

Retail Agency or Regional Alliance Only

Baseline Period	Start Year	End Year	Average Baseline GPCD*	2015 Interim Target *	Confirmed 2020 Target*
10-15 year	*1997*	*2006*	*197*	*177*	*157*
5 Year	*2003*	*2007*	*196*		
*All values are in Gallons per Capita per Day (GPCD)					
NOTES:					

Table 5-2: 2015 Compliance *Retail Agency or Regional Alliance Only*								
Actual 2015 GPCD*	2015 Interim Target GPCD*	Optional Adjustments to 2015 GPCD Enter "0" if no adjustment is made *From Methodology 8*					2015 GPCD* *(Adjusted if applicable)*	Did Supplier Achieve Targeted Reduction for 2015? Y/N
		Extraordinary Events*	Economic Adjustment*	Weather Normalization*	TOTAL Adjustments*	Adjusted 2015 GPCD*		
127	177	0	0	0	0	127	127	Yes
**All values are in Gallons per Capita per Day (GPCD)*								
NOTES:								

Table 6-1 Retail: Groundwater Volume Pumped						
☐	Supplier does not pump groundwater. The supplier will not complete the table below.					
Groundwater Type ***Drop Down List*** *May use each category multiple times*	Location or Basin Name	2011	2012	2013	2014	2015
Add additional rows as needed						
Alluvial Basin	San Fernando Basin	10138	10462	11191	9511	10277
	TOTAL	10,138	10,462	11,191	9,511	10,277
NOTES:						

Table 6-2 Retail: Wastewater Collected Within Service Area in 2015

☐	There is no wastewater collection system. The supplier will not complete the table below.
100	Percentage of 2015 service area covered by wastewater collection system *(optional)*
100	Percentage of 2015 service area population covered by wastewater collection system *(optional)*

Wastewater Collection			Recipient of Collected Wastewater			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? *Drop Down List*	Volume of Wastewater Collected from UWMP Service Area 2015	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area? *Drop Down List*	Is WWTP Operation Contracted to a Third Party? *(optional)* *Drop Down List*
Add additional rows as needed						
City of Burbank	Metered	8,786	City of Burbank	Burbank Water Reclamation Plant (BWRP)	Yes	Yes
Total Wastewater Collected from Service Area in 2015:		8,786				

NOTES:

Table 6-3 Retail: Wastewater Treatment and Discharge Within Service Area in 2015

☐	No wastewater is treated or disposed of within the UWMP service area. The supplier will not complete the table below.

Wastewater Treatment Plant Name	Discharge Location Name or Identifier	Discharge Location Description	Wastewater Discharge ID Number *(optional)*	Method of Disposal *Drop down list*	Does This Plant Treat Wastewater Generated Outside the Service Area?	Treatment Level *Drop down list*	2015 volumes			
							Wastewater Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area
Add additional rows as needed										
Burbank Water Reclamation Plant (BWRP)	002	Burbank Western Channel		River or creek outfall	No	Tertiary	8,786	6,323	2,463	0
						Total	8,786	6,323	2,463	0

NOTES:

Table 6-4 Retail: Current and Projected Recycled Water Direct Beneficial Uses Within Service Area

☐ Recycled water is not used and is not planned for use within the service area of the supplier.
The supplier will not complete the table below.

Name of Agency Producing (Treating) the Recycled Water:	City of Burbank Public Works
Name of Agency Operating the Recycled Water Distribution System:	Burbank Water and Power
Supplemental Water Added in 2015	5
Source of 2015 Supplemental Water	Potable water, treated groundwater

Beneficial Use Type	General Description of 2015 Uses	Level of Treatment *Drop down list*	2015	2020	2025	2030	2035	2040 (opt)
Agricultural irrigation			0	0	0	0	0	0
Landscape irrigation (excludes golf courses)	City-wide	Tertiary	936	1,007	1,017	1,017	1,017	1,017
Golf course irrigation	DeBell Golf Course	Tertiary	222	230	230	230	230	230
Commercial use	Cooling Towers	Tertiary	150	470	470	470	470	470
Industrial use	Fotokem	Tertiary	0	20	30	30	30	30
Geothermal and other energy production	MPP/Lake Power Plants	Tertiary	1,155	1,300	1,300	1,300	1,300	1,300
Seawater intrusion barrier			0	0	0	0	0	0
Recreational impoundment			0	0	0	0	0	0
Wetlands or wildlife habitat			0	0	0	0	0	0
Groundwater recharge (IPR)*			0	0	0	0	0	0
Surface water augmentation (IPR)*				0	0	0	0	0
Direct potable reuse				0	0	0	0	0
Other *(Provide General Description)*	Future export to LADWP system	Tertiary	0	300	2,000	2,000	2,000	2,000
		Total:	2,463	3,327	5,047	5,047	5,047	5,047

**IPR - Indirect Potable Reuse*

NOTES:

Table 6-5 Retail: 2010 UWMP Recycled Water Use Projection Compared to 2015 Actual

☐	Recycled water was not used in 2010 nor projected for use in 2015. The supplier will not complete the table below.

Use Type		2010 Projection for 2015	2015 Actual Use
Agricultural irrigation		0	0
Landscape irrigation (excludes golf courses)		975	936
Golf course irrigation		300	222
Commercial use		525	150
Industrial use		1,360	0
Geothermal and other energy production		0	1,155
Seawater intrusion barrier		0	0
Recreational impoundment		0	0
Wetlands or wildlife habitat		0	0
Groundwater recharge (IPR)		0	0
Surface water augmentation (IPR)		0	0
Direct potable reuse		0	0
Other	*Export to LADWP*	500	0
	Total	3,660	2,463

NOTES: 2010 projections included some irrigation with Commercial use, and Burbank power plant was called Industrial. For 2015, Commercial is mostly water for cooling towers and Burbank power plant is called "other energy production."

Table 6-6 Retail: Methods to Expand Future Recycled Water Use

☐	Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.
	Provide page location of narrative in UWMP

Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use
Add additional rows as needed			
LA Exchange	Deliver recycled water to LADWP in exchange for groundwater credits	2016	300
		Total	300

NOTES: Planned exchange of Burbank recycled water for LADWP groundwater pumping credits will increase use of recycled water and reduce the need for Burbank to purchase MWD imported water for groundwater recharge. By 2025, the amount may be 2000 AF per year.

Table 6-7 Retail: Expected Future Water Supply Projects or Programs						
☑	No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below.					
☐	Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.					
	Provide page location of narrative in the UWMP					
Name of Future Projects or Programs	Joint Project with other agencies?		Description (if needed)	Planned Implementation Year	Planned for Use in Year Type *Drop Down List*	Expected Increase in Water Supply to Agency *This may be a range*
	Drop Down List (y/n)	*If Yes, Agency Name*				
Add additional rows as needed						
NOTES:						

Table 6-8 Retail: Water Supplies — Actual				
Water Supply	Additional Detail on Water Supply	2015		
Drop down list *May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool*		Actual Volume	Water Quality *Drop Down List*	Total Right or Safe Yield *(optional)*
Add additional rows as needed				
Groundwater	SF Basin water treated at BOU	10,277	Drinking Water	
Purchased or Imported Water	MWD treated water	4,765	Drinking Water	
Recycled Water	from BWRP	2,463	Recycled Water	
Purchased or Imported Water	MWD untreated water for replenishment or LA exchange	7,350	Raw Water	
	Total	24,855		0
NOTES:				

Table 6-9 Retail: Water Supplies — Projected

Water Supply	Additional Detail on Water Supply	Projected Water Supply *Report To the Extent Practicable*									
Drop down list *May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool*		**2020**		**2025**		**2030**		**2035**		**2040** *(opt)*	
		Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*
Add additional rows as needed											
Groundwater	SF Basin water treated at BOU	11,000		11,000		11,000		11,000		11,000	
Purchased or Imported Water	MWD treated water	7,894		7,383		7,011		6,493		6,303	
Recycled Water	from BWRP	3,327		5,047		5,047		5,047		5,047	
Purchased or Imported Water	MWD untreated water for replenishment or LA exchange	6,300		4,700		4,800		4,900		4,900	
	Total	28,521	0	28,130	0	27,858	0	27,440	0	27,250	0

NOTES: Recycled water includes proposed deliveries to LA in exchange for groundwater credits: 300 AFY by 2020, then 2,000 AFY for 2025-2040. The amounts estimated for untreated replenishment depend on these LA exchange amounts. If less recycled water is exchanged for groundwater credits, the difference must be made up by increased replenishment purchases.

Table 7-1 Retail: Basis of Water Year Data			
Year Type	**Base Year** *If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 1999-2000, use 2000*	**Available Supplies if Year Type Repeats**	
		☐ Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location _____	
		☑ Quantification of available supplies is provided in this table as either volume only, percent only, or both.	
		Volume Available	**% of Average Supply**
Average Year	1922-2012		100%
Single-Dry Year	1977		100%
Multiple-Dry Years 1st Year	1990		100%
Multiple-Dry Years 2nd Year	1991		100%
Multiple-Dry Years 3rd Year	1992		100%
Multiple-Dry Years 4th Year *Optional*			
Multiple-Dry Years 5th Year *Optional*			
Multiple-Dry Years 6th Year *Optional*			

Agency may use multiple versions of Table 7-1 if different water sources have different base years and the supplier chooses to report the base years for each water source separately. If an agency uses multiple versions of Table 7-1, in the "Note" section of each table, state that multiple versions of Table 7-1 are being used and identify the particular water source that is being reported in each table.

NOTES: Used supply and demand estimates for Burbank prepared by MWD. MWD averaged hydrologies from 1922-2012.

Table 7-2 Retail: Normal Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 *(Opt)*
Supply totals *(autofill from Table 6-9)*	28,521	28,130	27,858	27,440	27,250
Demand totals *(autofill from Table 4-3)*	28,521	28,130	27,858	27,440	27,250
Difference	0	0	0	0	0
NOTES:					

Table 7-3 Retail: Single Dry Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 (Opt)
Supply totals	28,473	28,082	27,811	27,394	27,204
Demand totals	28,473	28,082	27,811	27,394	27,204
Difference	0	0	0	0	0
NOTES:					

Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison						
		2020	2025	2030	2035	2040 (Opt)
First year	Supply totals	28,448	28,470	28,183	27,741	27,531
	Demand totals	28,448	28,470	28,183	27,741	27,531
	Difference	0	0	0	0	0
Second year	Supply totals	28,448	28,470	28,183	27,741	27,531
	Demand totals	28,448	28,470	28,183	27,741	27,531
	Difference	0	0	0	0	0
Third year	Supply totals	28,448	28,470	28,183	27,741	27,531
	Demand totals	28,448	28,470	28,183	27,741	27,531
	Difference	0	0	0	0	0
Fourth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Fifth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Sixth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
NOTES:						

Table 8-1 Retail Stages of Water Shortage Contingency Plan		
Stage	Complete Both	
	Percent Supply Reduction[1] *Numerical value as a percent*	Water Supply Condition *(Narrative description)*
Add additional rows as needed		
Stage I		In force at all times
Stage II	10%	Implementation requires the action of City Council
Stage III	20%	Implementation requires the action of City Council
Stage IV	30%	Implementation requires the action of City Council
Stage V	40%	Implementation requires the action of City Council
Stage VI	50%	Implementation requires the action of City Council
[1] *One stage in the Water Shortage Contingency Plan must address a water shortage of 50%.*		
NOTES:		

Table 8-2 Retail Only: Restrictions and Prohibitions on End Uses			
Stage	Restrictions and Prohibitions on End Users *Drop down list* *These are the only categories that will be accepted by the WUEdata online submittal tool*	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? *Drop Down List*
Add additional rows as needed			
Stage I	Landscape - Restrict or prohibit runoff from landscape irrigation		Yes
	Landscape - Limit landscape irrigation to specific times	Prohibited between 9am - 6pm. Prohibited on rainy days and for two days after.	Yes
	Other - Require automatic shut of hoses		Yes
	CII - Lodging establishment must offer opt out of linen service		Yes
	CII - Restaurants may only serve water upon request		Yes
	CII - Commercial kitchens required to use pre-rinse spray valves		Yes
	CII - Other CII restriction or prohibition	Single-pass cooling systems prohibited where new water service requested	No
	CII - Other CII restriction or prohibition	Commercial conveyor car wash and commercial laundry systems must recirculate water	Yes
	Water Features - Restrict water use for decorative water features, such as fountains	Must use recirculated water	Yes
	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner		Yes
	Other - Prohibit use of potable water for washing hard surfaces		Yes
Stage II	Landscape - Limit landscape irrigation to specific times	15 minutes per station	Yes
	Landscape - Limit landscape irrigation to specific days	1 day Nov - March, Saturday 3 day Apr - Oct, Tuesday, Thursday, Saturday	Yes
Stage III	Landscape - Limit landscape irrigation to specific times	Prohibited hand watering between 9am - 6pm	Yes
	Landscape - Limit landscape irrigation to specific days	2 day Apr - Oct, Tuesday, Saturday	Yes
	Pools and Spas - Require covers for pools and spas		Yes
	Other	No outdoor evaporative cooling devices	Yes
Stage IV	Landscape - Limit landscape irrigation to specific days	1 day per week, Saturday	Yes
Stage V	Landscape - Limit landscape irrigation to specific times	20 minutes per station	Yes
	Landscape - Limit landscape irrigation to specific days	2 days month, trees and shrubs only, first and third Saturday	Yes
	Other	No new water service permits except R-1, R-2 zones	Yes
Stage VI	Landscape - Prohibit all landscape irrigation		Yes
NOTES:			

Table 8-3 Retail Only: Stages of Water Shortage Contingency Plan - Consumption Reduction Methods		
Stage	Consumption Reduction Methods by Water Supplier *Drop down list* *These are the only categories that will be accepted by the WUEdata online submittal tool*	Additional Explanation or Reference *(optional)*
Add additional rows as needed		
Stage I	Offer Water Use Surveys	
	Provide Rebates on Plumbing Fixtures and Devices	
	Provide Rebates for Landscape Irrigation Efficiency	
	Provide Rebates for Turf Replacement	
Stage II	Expand Public Information Campaign	
Stage III	Increase Water Waste Patrols	
Stage V	Moratorium or Net Zero Demand Increase on New Connections	As in Sustainable Water Use Ordinance; R-1 and R-2 not included
Stage VI	Decrease Line Flushing	
NOTES:		

Table 8-4 Retail: Minimum Supply Next Three Years			
	2016	2017	2018
Available Water Supply	28,448	28,448	28,448
NOTES:			

Table 10-1 Retail: Notification to Cities and Counties		
City Name	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
Burbank	☑	☑
	☐	☐
	☐	☐
County Name *Drop Down List*	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
Los Angeles County	☑	☑
	☐	☐

SB X7-7 Table 0: Units of Measure Used in UWMP* *(select one from the drop down list)*
Acre Feet
**The unit of measure must be consistent with Table 2-3*
NOTES:

SB X7-7 Table-1: Baseline Period Ranges			
Baseline	**Parameter**	**Value**	**Units**
10- to 15-year baseline period	2008 total water deliveries	23,909	Acre Feet
	2008 total volume of delivered recycled water	2,032	Acre Feet
	2008 recycled water as a percent of total deliveries	8.50%	Percent
	Number of years in baseline period[1, 2]	10	Years
	Year beginning baseline period range	1997	
	Year ending baseline period range[3]	2006	
5-year baseline period	Number of years in baseline period	5	Years
	Year beginning baseline period range	2003	
	Year ending baseline period range[4]	2007	

[1] If the 2008 recycled water percent is less than 10 percent, then the first baseline period is a continuous 10-year period. If the amount of recycled water delivered in 2008 is 10 percent or greater, the first baseline period is a continuous 10- to 15-year period. *[2] The Water Code requires that the baseline period is between 10 and 15 years. However, DWR recognizes that some water suppliers may not have the minimum 10 years of baseline data.*

[3] The ending year must be between December 31, 2004 and December 31, 2010.

[4] The ending year must be between December 31, 2007 and December 31, 2010.

NOTES:

SB X7-7 Table 2: Method for Population Estimates	
Method Used to Determine Population (may check more than one)	
☑	**1. Department of Finance** (DOF) DOF Table E-8 (1990 - 2000) and (2000-2010) and DOF Table E-5 (2011 - 2015) when available
☐	**2. Persons-per-Connection Method**
☐	**3. DWR Population Tool**
☐	**4. Other** DWR recommends pre-review
NOTES: DOF tables downloaded 2-16-2016	

SB X7-7 Table 3: Service Area Population		
Year		Population
10 to 15 Year Baseline Population		
Year 1	1997	97,326
Year 2	1998	98,303
Year 3	1999	98,817
Year 4	2000	100,316
Year 5	2001	100,869
Year 6	2002	101,572
Year 7	2003	102,574
Year 8	2004	102,872
Year 9	2005	103,122
Year 10	2006	103,060
Year 11		
Year 12		
Year 13		
Year 14		
Year 15		
5 Year Baseline Population		
Year 1	2003	102,574
Year 2	2004	102,872
Year 3	2005	103,122
Year 4	2006	103,060
Year 5	2007	103,121
2015 Compliance Year Population		
2015		106,084
NOTES: DOF numbers as of 2-16-2016		

SB X7-7 Table 4: Annual Gross Water Use *

Baseline Year *Fm SB X7-7 Table 3*		Volume Into Distribution System *This column will remain blank until SB X7-7 Table 4-A is completed.*	Deductions					Annual Gross Water Use
			Exported Water	Change in Dist. System Storage (+/-)	Indirect Recycled Water *This column will remain blank until SB X7-7 Table 4-B is completed.*	Water Delivered for Agricultural Use	Process Water *This column will remain blank until SB X7-7 Table 4-D is completed.*	
10 to 15 Year Baseline - Gross Water Use								
Year 1	1997	21,910			-		-	21,910
Year 2	1998	20,726			-		-	20,726
Year 3	1999	21,890			-		-	21,890
Year 4	2000	23,084			-		-	23,084
Year 5	2001	22,287			-		-	22,287
Year 6	2002	22,576			-		-	22,576
Year 7	2003	22,636			-		-	22,636
Year 8	2004	22,852			-		-	22,852
Year 9	2005	21,839			-		-	21,839
Year 10	2006	22,479			-		-	22,479
Year 11	0	-			-		-	-
Year 12	0	-			-		-	-
Year 13	0	-			-		-	-
Year 14	0	-			-		-	-
Year 15	0	-			-		-	-
10 - 15 year baseline average gross water use								22,228
5 Year Baseline - Gross Water Use								
Year 1	2003	22,636			-		-	22,636
Year 2	2004	22,852			-		-	22,852
Year 3	2005	21,839			-		-	21,839
Year 4	2006	22,479			-		-	22,479
Year 5	2007	23,029			-		-	23,029
5 year baseline average gross water use								22,567
2015 Compliance Year - Gross Water Use								
2015		15,042	-		-		-	**15,042**

* NOTE that the units of measure must remain consistent throughout the UWMP, as reported in Table 2-3

NOTES:

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)

Complete one table for each source.

Name of Source	City Wells/ Lake St. GAC

This water source is:

☑	The supplier's own water source
☐	A purchased or imported source

Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1997	1,197		1,197
Year 2	1998	1,821		1,821
Year 3	1999	1,085		1,085
Year 4	2000	1,460		1,460
Year 5	2001	500		500
Year 6	2002	-		-
Year 7	2003	-		-
Year 8	2004	-		-
Year 9	2005	-		-
Year 10	2006	-		-
Year 11	0			-
Year 12	0			-
Year 13	0			-
Year 14	0			-
Year 15	0			-
5 Year Baseline - Water into Distribution System				
Year 1	2003	-		-
Year 2	2004	-		-
Year 3	2005	-		-
Year 4	2006	-		-
Year 5	2007	-		-
2015 Compliance Year - Water into Distribution System				
2015		-		-

** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES:

SB X7-7 Table 4-A: Volume Entering the Distribution				
Name of Source	Burbank Operable Unit Wells and T.P.			
This water source is:				
☑	The supplier's own water source			
☐	A purchased or imported source			
Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1997	10,757		10,757
Year 2	1998	724		724
Year 3	1999	12,279		12,279
Year 4	2000	10,121		10,121
Year 5	2001	9,582		9,582
Year 6	2002	10,340		10,340
Year 7	2003	9,009		9,009
Year 8	2004	9,748		9,748
Year 9	2005	6,999		6,999
Year 10	2006	10,368		10,368
Year 11	0			0
Year 12	0			0
Year 13	0			0
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	2003	9,009		9,009
Year 2	2004	9,748		9,748
Year 3	2005	6,999		6,999
Year 4	2006	10,368		10,368
Year 5	2007	9,782		9,782
2015 Compliance Year - Water into Distribution System				
2015		10,277		10,277
** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*				
NOTES:				

SB X7-7 Table 4-A: Volume Entering the Distribution				
Name of Source	Metropolitan Water District of S.C.			
This water source is:				
☐	The supplier's own water source			
☑	A purchased or imported source			
Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1997	9,956		9,956
Year 2	1998	18,180		18,180
Year 3	1999	8,527		8,527
Year 4	2000	11,503		11,503
Year 5	2001	12,206		12,206
Year 6	2002	12,236		12,236
Year 7	2003	13,628		13,628
Year 8	2004	13,103		13,103
Year 9	2005	14,840		14,840
Year 10	2006	12,111		12,111
Year 11	0			0
Year 12	0			0
Year 13	0			0
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	2003	13,628		13,628
Year 2	2004	13,103		13,103
Year 3	2005	14,840		14,840
Year 4	2006	12,111		12,111
Year 5	2007	13,247		13,247
2015 Compliance Year - Water into Distribution System				
2015		4,766		4,766
** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*				
NOTES:				

SB X7-7 Table 5: Gallons Per Capita Per Day (GPCD)				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Annual Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use (GPCD)
10 to 15 Year Baseline GPCD				
Year 1	1997	97,326	21,910	201
Year 2	1998	98,303	20,726	188
Year 3	1999	98,817	21,890	198
Year 4	2000	100,316	23,084	205
Year 5	2001	100,869	22,287	197
Year 6	2002	101,572	22,576	198
Year 7	2003	102,574	22,636	197
Year 8	2004	102,872	22,852	198
Year 9	2005	103,122	21,839	189
Year 10	2006	103,060	22,479	195
Year 11	0	-	-	
Year 12	0	-	-	
Year 13	0	-	-	
Year 14	0	-	-	
Year 15	0	-	-	
10-15 Year Average Baseline GPCD				**197**
5 Year Baseline GPCD				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use
Year 1	2003	102,574	22,636	197
Year 2	2004	102,872	22,852	198
Year 3	2005	103,122	21,839	189
Year 4	2006	103,060	22,479	195
Year 5	2007	103,121	23,029	199
5 Year Average Baseline GPCD				**196**
2015 Compliance Year GPCD				
2015		106,084	15,042	**127**
NOTES:				

SB X7-7 Table 6: Gallons per Capita per Day *Summary From Table SB X7-7 Table 5*	
10-15 Year Baseline GPCD	197
5 Year Baseline GPCD	196
2015 Compliance Year GPCD	127
NOTES:	

SB X7-7 Table 7: 2020 Target Method *Select Only One*		
Target Method		Supporting Documentation
☑	Method 1	SB X7-7 Table 7A
☐	Method 2	SB X7-7 Tables 7B, 7C, and 7D *Contact DWR for these tables*
☐	Method 3	SB X7-7 Table 7-E
☐	Method 4	Method 4 Calculator
NOTES:		

SB X7-7 Table 7-A: Target Method 1 20% Reduction	
10-15 Year Baseline GPCD	**2020 Target GPCD**
197	**157**
NOTES:	

SB X7-7 Table 7-F: Confirm Minimum Reduction for 2020 Target			
5 Year Baseline GPCD *From SB X7-7 Table 5*	Maximum 2020 Target[1]	Calculated 2020 Target[2]	**Confirmed 2020 Target**
196	186	157	**157**

[1] Maximum 2020 Target is 95% of the 5 Year Baseline GPCD *[2] 2020 Target is calculated based on the selected Target Method, see SB X7-7 Table 7 and corresponding tables for agency's calculated target.*

NOTES:

SB X7-7 Table 8: 2015 Interim Target GPCD		
Confirmed 2020 Target *Fm SB X7-7 Table 7-F*	10-15 year Baseline GPCD *Fm SB X7-7 Table 5*	**2015 Interim Target GPCD**
157	197	**177**

NOTES:

SB X7-7 Table 9: 2015 Compliance								
Actual 2015 GPCD	2015 Interim Target GPCD	Optional Adjustments *(in GPCD)* Enter "0" if Adjustment Not Used			TOTAL Adjustments	Adjusted 2015 GPCD	2015 GPCD *(Adjusted if applicable)*	**Did Supplier Achieve Targeted Reduction for 2015?**
		Extraordinary Events	Weather Normalization	Economic Adjustment				
127	177	-	-	-	-	127	127	**YES**

NOTES:

Appendix D

San Fernando Water Rights Judgment

SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF LOS ANGELES

THE CITY OF LOS ANGELES, Plaintiff, vs. CITY OF SAN FERNANDO, et al., Defendants.	NO. 650079

JUDGMENT

January 26, 1979

ORIGINAL FILED

JAN 23 '79

JOEL J. CORCORAN, County Clerk

SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF LOS ANGELES

THE CITY OF LOS ANGELES, Plaintiff, vs. CITY OF SAN FERNANDO, et al., Defendants.	No. 650079 JUDGMENT

There follows by consecutive paging a Table of Contents (pages i. to vi.), Recitals (page 1), Definitions and List of Attachments (pages 1 to 6), Designation of Parties (page 6), Declaration re Geology and Hydrology (pages 6 to 12), Declaration of Rights (pages 12 to 21), Injunctions (pages 21 to 23), Continuing Jurisdiction (page 23), Watermaster (pages 23 to 29), Physical Solution (pages 29 to 34), and Miscellaneous Provisions (pages 34 to 35), and Attachments (pages 36 to 46). Each and all of said several parts constitute a single integrated Judgment herein.

TABLE OF CONTENTS

ATTACHMENTS

1. RECITALS

This matter was originally tried before the Honorable Edmund M. Mour, without jury, commencing on March 1, 1966, and concluding with entry of Findings, Conclusions and Judgment on March 14, 1968, after more than 181 trial days. Los Angeles appealed from said judgment and the California Supreme Court, by unanimous opinion, (14 Cal. 3d 199) reversed and remanded the case; after trial of some remaining issues on remand, and consistent with the opinion of the Supreme Court, and pursuant to stipulations, the Court signed and filed Findings of Fact and Conclusions of Law. Good cause thereby appearing,

IT IS ORDERED, ADJUDGED AND DECREED:

2. DEFINITIONS AND ATTACHMENTS

2.1 Definitions of Terms. As used in this Judgment, the following terms shall have the meanings herein set forth:

[1] Basin or Ground Water Basin -- A subsurface geologic formation with defined boundary conditions, containing a ground water reservoir, which is capable of yielding a significant quantity of ground water.

[2] Burbank -- Defendant City of Burbank.

[3] Crescenta Valley -- Defendant Crescenta Valley County Water District.

[4] Colorado Aqueduct -- The aqueduct facilities and system owned and operated by MWD for the importation of water from the Colorado River to its service area.

[5] Deep Rock -- Defendant Evelyn M. Pendleton, dba Deep Rock Artesian Water Company.

[6] Delivered Water -- Water utilized in a water supply distribution system, including reclaimed water.

[7] Eagle Rock Basin -- The separate ground water basin underlying the area shown as such on Attachment "A".

[8] Extract or Extraction -- To produce ground water, or its production, by pumping or any other means.

[9] Fiscal Year -- July 1 through June 30 of the following calendar year.

[10] Foremost -- Defendant Foremost Foods Company, successor to defendant Sparkletts Drinking Water Corp.

[11] Forest Lawn -- Collectively, defendants Forest Lawn Cemetery Association, Forest Lawn Company, Forest Lawn Memorial-Park Association, and American Security and Fidelity Corporation.

[12] Gage F-57 -- The surface stream gaging station operated by Los Angeles County Flood Control District and situated in Los Angeles Narrows immediately upstream from the intersection of the Los Angeles River and Arroyo Seco, at which point the surface outflow from ULARA is measured.

[13] Glendale -- Defendant City of Glendale.

[14] Ground Water -- Water beneath the surface of the ground and within the zone of saturation.

[15] Hersch & Plumb -- Defendants David and Eleanor A. Hersch and Gerald B. and Lucille Plumb, successors to Wellesley and Duckworth defendants.

[16] Import Return Water -- Ground water derived from percolation attributable to delivered imported water.

[17] Imported Water -- Water used within ULARA, which

is derived from sources outside said watershed. Said term does not include inter-basin transfers wholly within ULARA.

[18] In Lieu Storage -- The act of accumulating ground water in a basin by intentional reduction of extractions of ground water which a party has a right to extract.

[19] Lockheed -- Defendant Lockheed Aircraft Corporation.

[20] Los Angeles -- Plaintiff City of Los Angeles, acting by and through its Department of Water and Power.

[21] Los Angeles Narrows -- The physiographic area northerly of Gage F-57 bounded on the east by the San Rafael and Repetto Hills and on the west by the Elysian Hills, through which all natural outflow of the San Fernando Basin and the Los Angeles River flow en route to the Pacific Ocean.

[22] MWD -- The Metropolitan Water District of Southern California, a public agency of the State of California.

[23] Native Safe Yield -- That portion of the safe yield of a basin derived from native waters.

[24] Native Waters -- Surface and ground waters derived from precipitation within ULARA.

[25] Overdraft -- A condition which exists when the total annual extractions of ground water from a basin exceed its safe yield, and when any temporary surplus has been removed.

[26] Owens-Mono Aqueduct -- The aqueduct facilities owned and operated by Los Angeles for importation to ULARA water from the Owens River and Mono Basin watersheds easterly of the Sierra-Nevada in Central California.

[27] Private Defendants -- Collectively, all of those

defendants who are parties, other than Glendale, Burbank, San Fernando and Crescenta Valley.

[28] Reclaimed Water -- Water which, as a result of processing of waste water, is made suitable for and used for a controlled beneficial use.

[29] Regulatory Storage Capacity -- The volume of storage capacity of San Fernando Basin which is required to regulate the safe yield of the basin, without significant loss, during any long-term base period of water supply.

[30] Rising Water -- The effluent from a ground water basin which appears as surface flow.

[31] Rising Water Outflow -- The quantity of rising water which occurs within a ground water basin and does not rejoin the ground water body or is not captured prior to flowing past a point of discharge from the basin.

[32] Safe Yield -- The maximum quantity of water which can be extracted annually from a ground water basin under a given set of cultural conditions and extraction patterns, based on the long-term supply, without causing a continuing reduction of water in storage.

[33] San Fernando -- Defendant City of San Fernando.

[34] San Fernando Basin -- The separate ground water basin underlying the area shown as such on Attachment "A".

[35] Sportsman's Lodge -- Defendant Sportsman's Lodge Banquet Association.

[36] Stored Water -- Ground water in a basin consisting of either (1) imported or reclaimed water which is intentionally spread, or (2) safe yield water which is allowed to

accumulate by In Lieu Storage. Said ground waters are distinguished and separately accounted for in a ground water basin, notwithstanding that the same may be physically commingled with other waters in the basin.

[37] Sylmar Basin -- The separate ground water basin underlying the area indicated as such on Attachment "A".

[38] Temporary Surplus -- The amount of ground water which would be required to be removed from a basin in order to avoid waste under safe yield operation.

[39] Toluca Lake -- Defendant Toluca Lake Property Owners Association.

[40] ULARA or Upper Los Angeles River Area -- The Upper Los Angeles River watershed, being the surface drainage area of the Los Angeles River tributary to Gage F-57.

[41] Underlying Pueblo Waters -- Native ground waters in the San Fernando Basin which underlie safe yield and stored waters.

[42] Valhalla -- Collectively, Valhalla Properties, Valhalla Memorial Park, Valhalla Mausoleum Park.

[43] Van de Kamp -- Defendant Van de Kamp's Holland Dutch Bakers, Inc.

[44] Verdugo Basin -- The separate ground water basin underlying the area shown as such on Attachment "A".

[45] Water Year -- October 1 through September 30 of the following calendar year.

Geographic Names, not herein specifically defined, are used to refer to the places and locations thereof as shown on Attachment "A".

2.2 List of Attachments. There are attached hereto the

following documents, which are by this reference incorporated in this Judgment and specifically referred to in the text hereof:

"A" -- Map entitled "Upper Los Angeles River Area", showing Separate Basins therein.

"B" -- List of "Dismissed Parties."

"C" -- List of "Defaulted Parties."

"D" -- List of "Disclaiming Parties."

"E" -- List of "Prior Stipulated Judgments."

"F" -- List of "Stipulated Non-Consumptive or Minimal-Consumptive Use Practices."

"G" -- Map entitled "Place of Use and Service Area of Private Defendants."

"H" -- Map entitled "Public Agency Water Service Areas."

3. PARTIES

3.1 Defaulting and Disclaiming Defendants. Each of the defendants listed on Attachment "C" and Attachment "D" is without any right, title or interest in, or to any claim to extract ground water from ULARA or any of the separate ground water basins therein.

3.2 No Rights Other Than as Herein Declared. No party to this action has any rights in or to the waters of ULARA except to the extent declared herein.

4. DECLARATION RE GEOLOGY AND HYDROLOGY

4.1 Geology.

4.1.1 ULARA. ULARA (or Upper Los Angeles River Area), is the watershed or surface drainage area tributary to the Los Angeles River at Gage F-57. Said watershed contains a

total of 329,000 acres, consisting of approximately 123,000 acres of valley fill area and 206,000 acres of hill and mountain area, located primarily in the County of Los Angeles, with a small portion in the County of Ventura. Its boundaries are shown on Attachment "A". The San Gabriel Mountains form the northerly portion of the watershed, and from them two major washes--the Pacoima and the Tujunga--discharge southerly. Tujunga Wash traverses the valley fill in a southerly direction and joins the Los Angeles River, which follows an easterly course along the base of the Santa Monica Mountains before it turns south through the Los Angeles Narrows. The waters of Pacoima Wash as and when they flow out of Sylmar Basin are tributary to San Fernando Basin. Lesser tributary washes run from the Simi Hills and the Santa Susana Mountains in the westerly portion of the watershed. Other minor washes, including Verdugo Wash, drain the easterly portion of the watershed which consists of the Verdugo Mountains, the Elysian, San Rafael and Repetto Hills. Each of said washes is a non-perennial stream whose flood flows and rising waters are naturally tributary to the Los Angeles River. The Los Angeles River within ULARA and most of said tributary natural washes have been replaced, and in some instances relocated, by concrete-lined flood control channels. There are 85.3 miles of such channels within ULARA, 62% of which have lined concrete bottoms.

4.1.2 San Fernando Basin. San Fernando Basin is the major ground water basin in ULARA. It underlies 112,047 acres and is located in the area shown as such on Attachment "A".

Boundary conditions of the San Fernando Basin consist on the east and northeast of alluvial contacts with non-waterbearing series along the San Rafael Hills and Verdugo Mountains and the Santa Susana Mountains and Simi Hills on the northwest and west and the Santa Monica Mountains on the south. Water-bearing material in said basin extends to at least 1000 feet below the surface. Rising water outflow from the San Fernando Basin passes its downstream and southerly boundary in the vicinity of Gage F-57, which is located in Los Angeles Narrows about 300 feet upstream from the Figueroa Street (Dayton Street) Bridge. The San Fernando Basin is separated from the Sylmar Basin on the north by the eroded south limb of the Little Tujunga Syncline which causes a break in the ground water surface of about 40 to 50 feet.

4.1.3 Sylmar Basin. Sylmar Basin underlies 5,565 acres and is located in the area shown as such on Attachment "A". Water-bearing material in said basin extends to depths in excess of 12,000 feet below the surface. Boundary conditions of Sylmar Basin consist of the San Gabriel Mountains on the north, a topographic divide in the valley fill between the Mission Hills and San Gabriel Mountains on the west, the Mission Hills on the southwest, Upper Lopez Canyon Sangus Formation on the east, along the east bank of Pacoima Wash, and the eroded south limb of the Little Tujunga Syncline on the south.

4.1.4 Verdugo Basin. Verdugo Basin underlies 4,400 acres and is located in the area shown as such on Attachment "A". Boundary conditions of Verdugo Basin consist of the San Gabriel Mountains on the north, the Verdugo Mountains on the

south and southwest, the San Rafael Hills on the southeast and the topographic divide on the east between the drainage area that is tributary to the Tujunga Wash to the west and Verdugo Wash to the east, the ground water divide on the west between Monk Hill-Raymond Basin and the Verdugo Basin on the east and a submerged dam constructed at the mouth of Verdugo Canyon on the south.

4.1.5 Eagle Rock Basin. Eagle Rock Basin underlies 807 acres and is located in the area shown as such on Attachment "A". Boundary conditions of Eagle Rock Basin consist of the San Rafael Hills on the north and west and the Repetto Hills on the east and south with a small alluvial area to the southeast consisting of a topographic divide.

4.2 Hydrology.

4.2.1 Water Supply. The water supply of UMARA consists of native waters, derived from precipitation on the valley floor and runoff from the hill and mountain areas, and of imported water from outside the watershed. The major source of imported water has been from the Owens-Mono Aqueduct, but additional supplies have been and are now being imported through MWD from its Colorado Aqueduct and the State Aqueduct.

4.2.2 Ground Water Movement. The major water-bearing formation in UMARA is the valley fill material bounded by hills and mountains which surround it. Topographically, the valley-fill area has a generally uniform grade in a southerly and easterly direction with the slope gradually decreasing from the base of the hills and mountains to the surface drainage outlet at Gage F-57. The valley fill material is a

heterogeneous mixture of clays, silts, sand and gravel laid down as alluvium. The valley fill is of greatest permeability along and easterly of Pacoima and Tujunga Washes and generally throughout the eastern portion of the valley fill area, except in the vicinity of Glendale where it is of lesser permeability. Ground water occurs mainly within the valley fill, with only negligible amounts occurring in hill and mountain areas. There is no significant ground water movement from the hill and mountain formations into the valley fill. Available geologic data do not indicate that there are any sources of native ground water other than those derived from precipitation. Ground water movement in the valley fill generally follows the surface topography and drainage except where geologic or man-made impediments occur or where the natural flow has been modified by extensive pumping.

4.2.3 Separate Ground Water Basins. The physical and geologic characteristics of each of the ground water basins, Eagle Rock, Sylmar, Verdugo and San Fernando, cause impediments to inter-basin ground water flow whereby there is created separate underground reservoirs. Each of said basins contains a common source of water supply to parties extracting ground water from each of said basins. The amount of underflow from Sylmar Basin, Verdugo Basin and Eagle Rock Basin to San Fernando Basin is relatively small, and on the average has been approximately 540 acre feet per year from the Sylmar Basin; 80 acre feet per year from Verdugo Basin; and 50 acre feet per year from Eagle Rock Basin. Each has physiographic, geologic and hydrologic differences, one from the other, and

each meets the hydrologic definition of "basin." The extractions of water in the respective basins affect the other water users within that basin but do not significantly or materially affect the ground water levels in any of the other basins. The underground reservoirs of Eagle Rock, Verdugo and Sylmar Basins are independent of one another and of the San Fernando Basin.

4.2.4 Safe Yield and Native Safe Yield. The safe yield and native safe yield, stated in acre feet, of the three largest basins for the year 1964-65 was as follows:

Basin	Safe Yield	Native Safe Yield
San Fernando	90,680	43,660
Sylmar	6,210	3,850
Verdugo	7,150	3,590

The safe yield of Eagle Rock Basin is derived from imported water delivered by Los Angeles. There is no measurable native safe yield.

4.2.5 Separate Basins -- Separate Rights. The rights of the parties to extract ground water within ULARA are separate and distinct as within each of the several ground water basins within said watershed.

4.2.6 Hydrologic Condition of Basins. The several basins within ULARA are in varying hydrologic conditions, which result in different legal consequences.

4.2.6.1 San Fernando Basin. The first full year of overdraft in San Fernando Basin was 1954-55. It remained in overdraft continuously until 1968, when an injunction herein became effective. Thereafter, the

basin was placed on safe yield operation. There is no surplus ground water available for appropriation or overlying use from San Fernando Basin.

4.2.6.2 Sylmar Basin. Sylmar Basin is not in overdraft. There remains safe yield over and above the present reasonable beneficial overlying uses, from which safe yield the appropriative rights of Los Angeles and San Fernando may be and have been exercised.

4.2.6.3 Verdugo Basin. Verdugo Basin was in overdraft for more than five consecutive years prior to 1968. Said basin is not currently in overdraft, due to decreased extractions by Glendale and Crescenta Valley on account of poor water quality. However, the combined appropriative and prescriptive rights of Glendale and Crescenta Valley are equivalent to the safe yield of the Basin. No private overlying or appropriative rights exist in Verdugo Basin.

4.2.6.4 Eagle Rock Basin. The only measurable water supply to Eagle Rock Basin is import return water by reason of importations by Los Angeles. Extractions by Foremost and Deep Rock under the prior stipulated judgments have utilized the safe yield of Eagle Rock Basin, and have maintained hydrologic equilibrium therein.

5. DECLARATION OF RIGHTS

5.1 Right to Native Waters.

5.1.1 Los Angeles River and San Fernando Basin.

5.1.1.1 Los Angeles' Pueblo Right. Los Angeles, as the successor to all rights, claims and powers of the Spanish Pueblo de Los Angeles in regard to water rights, is the owner of a prior and paramount pueblo right to the surface waters of the Los Angeles River and the native ground waters of San Fernando Basin to meet its reasonable beneficial needs and for its inhabitants.

5.1.1.2 Extent of Pueblo Right. Pursuant to said pueblo right, Los Angeles is entitled to satisfy its needs and those of its inhabitants within its boundaries as from time to time modified. Water which is in fact used for pueblo right purposes is and shall be deemed needed for such purposes.

5.1.1.3 Pueblo Right -- Nature and Priority of Exercise. The pueblo right of Los Angeles is a prior and paramount right to all of the surface waters of the Los Angeles River, and native ground water in San Fernando Basin, to the extent of the reasonable needs and uses of Los Angeles and its inhabitants throughout the corporate area of Los Angeles, as its boundaries may exist from time to time. To the extent that the Basin contains native waters and imported waters, it is presumed that the first water extracted by Los Angeles in any water year is pursuant to its pueblo right, up to the amount of the native safe yield. The next extractions by Los Angeles in any year are deemed to be from import return water, followed by stored water, to the full extent of Los Angeles' right to such import return water and stored

water. In the event of need to meet water requirements of its inhabitants, Los Angeles has the additional right, pursuant to its pueblo right, withdraw temporarily from storage Underlying Pueblo Waters, subject to an obligation to replace such water as soon as practical.

5.1.1.4 Rights of Other Parties. No other party to this action has any right in or to the surface waters of the Los Angeles River or the native safe yield of the San Fernando Basin.

5.1.2 Sylmar Basin Rights.

5.1.2.1 No Pueblo Rights. The pueblo right of Los Angeles does not extend to or include ground waters in Sylmar Basin.

5.1.2.2 Overlying Rights. Defendants Moordigian and Hersch & Plumb own lands overlying Sylmar Basin and have a prior correlative right to extract native waters from said Basin for reasonable beneficial uses on their said overlying lands. Said right is appurtenant to said overlying lands and water extracted pursuant thereto may not be exported from said lands nor can said right be transferred or assigned separate and apart from said overlying lands.

5.1.2.3 Appropriative Rights of San Fernando and Los Angeles. San Fernando and Los Angeles own appropriative rights, of equal priority, to extract and put to reasonable beneficial use for the needs of said cities and their inhabitants, native waters of the Sylmar Basin in excess of the exercised reasonable

beneficial needs of overlying users. Said appropriative rights are:

San Fernando	3,500 acre feet
Los Angeles	1,560 acre feet.

5.1.2.4 No Prescription. The Sylmar Basin is not presently in a state of overdraft and no rights by prescription exist in said Basin against any overlying or appropriative water user.

5.1.2.5 Other Parties. No other party to this action owns or possesses any right to extract native ground waters from the Sylmar Basin.

5.1.3 Verdugo Basin Rights.

5.1.3.1 No Pueblo Rights. The pueblo right of Los Angeles does not extend to or include ground water in Verdugo Basin.

5.1.3.2 Prescriptive Rights of Glendale and Crescenta Valley. Glendale and Crescenta Valley own prescriptive rights as against each other and against all private overlying or appropriative parties in the Verdugo Basin to extract, with equal priority, the following quantities of water from the combined safe yield of native and imported waters in Verdugo Basin:

Glendale	3,856 acre feet
Crescenta Valley	3,294 acre feet.

5.1.3.3 Other Parties. No other party to this action owns or possesses any right to extract native ground waters from the Verdugo Basin.

5.1.4 Eagle Rock Basin Rights.

5.1.4.1 No Pueblo Rights. The pueblo right of Los Angeles does not extend to or include ground water in Eagle Rock Basin.

5.1.4.2 No Rights in Native Waters. The Eagle Rock Basin has no significant or measurable native safe yield and no parties have or assert any right or claim to native waters in said Basin.

5.2 Rights to Imported Waters.

5.2.1 San Fernando Basin Rights.

5.2.1.1 Rights to Recapture Import Return Water. Los Angeles, Glendale, Burbank and San Fernando have each caused imported waters to be brought into ULARA and to be delivered to lands overlying the San Fernando Basin, with the result that percolation and return flow of such delivered water has caused imported waters to become a part of the safe yield of San Fernando Basin. Each of said parties has a right to extract from San Fernando Basin that portion of the safe yield of the Basin attributable to such import return waters.

5.2.1.2 Rights to Store and Recapture Stored Water. Los Angeles has heretofore spread imported water directly in San Fernando Basin. Los Angeles, Glendale, Burbank and San Fernando each have rights to store water in San Fernando Basin by direct spreading or in lieu practices. To the extent of any future spreading or in lieu storage of import water or reclaimed water by Los Angeles, Glendale, Burbank or San Fernando, the party

causing said water to be so stored shall have a right to extract an equivalent amount of ground water from San Fernando Basin. The right to extract waters attributable to such storage practices is an undivided right to a quantity of water in San Fernando Basin equal to the amount of such Stored Water to the credit of any party, as reflected in Watermaster records.

5.2.1.3 Calculation of Import Return Water and Stored Water Credits. The extraction rights of Los Angeles, Glendale, Burbank and San Fernando in San Fernando Basin in any year, insofar as such rights are based upon import return water, shall only extend to the amount of any accumulated import return water credit of such party by reason of imported water delivered after September 30, 1977. The annual credit for such import return water shall be calculated by Watermaster based upon the amount of delivered water during the preceding water year, as follows:

Los Angeles:	20.8% of all delivered water (including reclaimed water) to valley fill lands of San Fernando Basin.
San Fernando:	26.3% of all imported and reclaimed water delivered to valley-fill lands of San Fernando Basin.
Burbank:	20.0% of all delivered water (including reclaimed water) to San Fernando Basin and its tributary hill and mountain areas.

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Glendale:	20.0% of all delivered water (including reclaimed water) to San Fernando Basin and its tributary hill and mountain areas (i.e., total delivered water, [including reclaimed water], less 105% of total sales by Glendale in Verdugo Basin and its tributary hills).

In calculating Stored Water credit, by reason of direct spreading of imported or reclaimed water, Watermaster shall assume that 100% of such spread water reached the ground water in the year spread.

5.2.1.4 Cumulative Import Return Water Credits. Any import return water which is not extracted in a given water year shall be carried over, separately accounted for, and maintained as a cummulative credit for purposes of future extractions.

5.2.1.5 Overextractions. In addition to extractions of stored water, Glendale, Burbank or San Fernando may, in any water year, extract from San Fernando Basin an amount not exceeding 10% of such party's last annual credit for import return water, subject, however, to an obligation to replace such overextraction by reduced extractions during the next succeeding water year. Any such overextraction which is not so replaced shall constitute physical solution water, which shall be deemed to have been extracted in said subsequent water year.

5.2.1.6 Private Defendant. No private defendant is entitled to extract water from the San Fernando Basin on account of the importation of water thereto by overlying public entities.

5.2.2 Sylmar Basin Rights.

5.2.2.1 Rights to Recapture Import Return Waters. Los Angeles and San Fernando have caused imported waters to be brought into ULARA and delivered to lands overlying the Sylmar Basin with the result that percolation and return flow of such delivered water has caused imported waters to become a part of the safe yield of Sylmar Basin. Los Angeles and San Fernando are entitled to recover from Sylmar Basin such imported return waters. In calculating the annual entitlement to recapture such import return water, Los Angeles and San Fernando shall be entitled to 46.7% of the preceding water year's imported water delivered by such party to lands overlying Sylmar Basin. Thus, by way of example, in 1976-77, Los Angeles was entitled to extract 2370 acre feet of ground water from Sylmar Basin, based on delivery to lands overlying said Basin of 6640 acre feet during 1975-76. The quantity of San Fernando's imported water to, and the return flow therefrom, in the Sylmar Basin in the past has been of such minimal quantities that it has not been calculated.

5.2.2.2 Rights to Store and Recapture Stored Water. Los Angeles and San Fernando each have the right to store water in Sylmar Basin equivalent to their rights in San Fernando Basin under paragraph 5.2.1.2 hereof.

5.2.2.3 Carry Over. Said right to recapture stored water, import return water and other safe yield waters to which a party is entitled, if not exercised in a given year, can be carried over for not to exceed five

years, if the underflow through Sylmar Notch does not exceed 400 acre feet per year.

5.2.2.4 Private Defendants. No private defendant is entitled to extract water from within the Sylmar Basin on account of the importation of water thereto by overlying public entities.

5.2.3 Verdugo Basin Rights.

5.2.3.1 Glendale and Crescenta Valley. Glendale and Crescenta Valley own appropriative and prescriptive rights in and to the total safe yield of Verdugo Basin, without regard as to the portions thereof derived from native water and from delivered imported waters, notwithstanding that both of said parties have caused waters to be imported and delivered on lands overlying Verdugo Basin. Said aggregate rights are as declared in Paragraph 5.1.3.2 of these Conclusions.

5.2.3.2 Los Angeles. Los Angeles may have a right to recapture its import return waters by reason of delivered import water in the Basin, based upon imports during and after water year 1977-78, upon application to Watermaster not later than the year following such import and on subsequent order after hearing by the Court.

5.2.3.3 Private Defendants. No private defendant, as such, is entitled to extract water from within the Verdugo Basin on account of the importation of water thereto by overlying public entities.

5.2.4 Eagle Rock Basin Rights.

5.2.4.1 Los Angeles. Los Angeles has caused

imported water to be delivered for use on lands overlying Eagle Rock Basin and return flow from said delivered imported water constitutes the entire safe yield of Eagle Rock Basin. Los Angeles has the right to extract or cause to be extracted the entire safe yield of Eagle Rock Basin.

5.2.4.2 Private Defendants. No private defendants have a right to extract water from within Eagle Rock Basin, except pursuant to the physical solution herein.

6. INJUNCTIONS

Each of the parties named or referred to in this Part 6, its officers, agents, employees and officials is, and they are, hereby ENJOINED and RESTRAINED from doing or causing to be done any of the acts herein specified:

6.1 Each and Every Defendant -- from diverting the surface waters of the Los Angeles River or extracting the native waters of SAN FERNANDO BASIN, or in any manner interfering with the prior and paramount pueblo right of Los Angeles in and to such waters, except pursuant to the physical solution herein decreed.

6.2 Each and Every Private Defendant -- from extracting ground water from the SAN FERNANDO, VERDUGO, or EAGLE ROCK BASINS, except pursuant to physical solution provisions hereof.

6.3 Defaulting and Disclaiming Parties (listed in Attachments "C" and "D") -- from diverting or extracting water within ULARA, except pursuant to the physical solution herein decreed.

6.4 Glendale -- from extracting ground water from SAN FERNANDO BASIN in any water year in quantities exceeding its

import return water credit and any stored water credit, except pursuant to the physical solution; and from extracting water from VERDUGO BASIN in excess of its appropriative and prescriptive right declared herein.

6.5 Burbank -- from extracting ground water from SAN FERNANDO BASIN in any water year in quantities exceeding its import return water credit and any stored water credit, except pursuant to the physical solution decreed herein.

6.6 San Fernando -- from extracting ground water from SAN FERNANDO BASIN in any water year in quantities exceeding its import return water credit and any stored water credit, except pursuant to the physical solution herein decreed.

6.7 Crescenta Valley -- from extracting ground water from VERDUGO BASIN in any year in excess of its appropriative and prescriptive right declared herein.

6.8 Los Angeles -- from extracting ground water from SAN FERNANDO BASIN in any year in excess of the native safe yield, plus any import return water credit and stored water credit of said city; provided, that where the needs of Los Angeles require the extraction of Underlying Pueblo Waters, Los Angeles may extract such water subject to an obligation to replace such excess as soon as practical; and from extracting ground water from VERDUGO BASIN in excess of any credit for import return water which Los Angeles may acquire by reason of delivery of imported water for use overlying said basin, as hereinafter confirmed on application to Watermaster and by subsequent order of the Court.

6.9 Non-consumptive and Minimal Consumptive Use Parties. The parties listed in Attachment "F" are enjoined from extracting

water from San Fernando Basin, except in accordance with practices specified in Attachment "F", or pursuant to the physical solution herein decreed.

7. CONTINUING JURISDICTION

7.1 Jurisdiction Reserved. Full jurisdiction, power and authority are retained by and reserved to the Court for purposes of enabling the Court upon application of any party or of the Watermaster by motion and upon at least 30 days' notice thereof, and after hearing thereon, to make such further or supplemental orders or directions as may be necessary or appropriate, for interpretation, enforcement or carrying out of this Judgment, and to modify, amend or amplify any of the provisions of this Judgment or to add to the provisions thereof consistent with the rights herein decreed; provided, however, that no such modification, amendment or amplification shall result in a change in the provisions of Section 5.2.1.3 or 9.2.1 hereof.

8. WATERMASTER

8.1 Designation and Appointment.

8.1.1 Watermaster Qualification and Appointment. A qualified hydrologist, acceptable to all active public agency parties hereto, will be appointed by subsequent order of the Court to assist the Court in its administration and enforcement of the provisions of this Judgment and any subsequent orders of the Court entered pursuant to the Court's continuing jurisdiction. Such Watermaster shall serve at the pleasure of the Court, but may be removed or replaced on motion of any party after hearing and showing of good cause.

8.2 Powers and Duties.

8.2.1 Scope. Subject to the continuing supervision and control of the Court, Watermaster shall exercise the express powers, and shall perform the duties, as provided in this Judgment or hereafter ordered or authorized by the Court in the exercise of the Court's continuing jurisdiction.

8.2.2 Requirement for Reports, Information and Records. Watermaster may require any party to furnish such reports, information and records as may be reasonably necessary to determine compliance or lack of compliance by any party with the provisions of this Judgment.

8.2.3 Requirement of Measuring Devices. Watermaster shall require all parties owning or operating any facilities for extraction of ground water from OLARA to install and maintain at all times in good working order, at such party's own expense, appropriate meters or other measuring devices satisfactory to the Watermaster.

8.2.4 Inspection by Watermaster. Watermaster shall make inspections of (a) ground water extraction facilities and measuring devices of any party, and (b) water use practices by any party under physical solution conditions, at such times and as often as may be reasonable under the circumstances to verify reported data and practices of such party. Watermaster shall also identify and report on any new or proposed new ground water extractions by any party or non-party.

8.2.5 Policies and Procedures. Watermaster shall, with the advice and consent of the Administrative Committee, adopt and amend from time to time Policies and Procedures as may be

reasonably necessary to guide Watermaster in performance of its duties, powers and responsibilities under the provisions of this judgment.

8.2.6 Data Collection. Watermaster shall collect and verify data relative to conditions of CLARA and its ground water basins from the parties and one or more other governmental agencies. Where necessary, and upon approval of the Administrative Committee, Watermaster may develop supplemental data.

8.2.7 Cooperation With Other Agencies. Watermaster may act jointly or cooperate with agencies of the United States and the State of California or any political subdivisions, municipalities or districts (including any party) to secure or exchange data to the end that the purpose of this Judgment, including its physical solution, may be fully and economically carried out.

8.2.8 Accounting for Non-consumptive Use. Watermaster shall calculate and report annually the non-consumptive and consumptive uses of extracted ground water by each party listed in Attachment "F."

8.2.9 Accounting for Accumulated Import Return Water and Stored Water. Watermaster shall record and verify additions, extractions and losses and maintain an annual and cummulative account of all (a) stored water and (b) import return water in San Fernando Basin. Calculation of losses attributable to Stored Water shall be approved by the Administrative Committee or by subsequent order of the Court. For purposes of such accounting, extractions in any water year by

Glendale, Burbank or San Fernando shall be assumed to be first from accumulated import return water, second from stored water, and finally pursuant to physical solution; provided, that any such city may, by written notice of intent to Watermaster, alter said priority of extractions as between import return water and stored water.

8.2.10 Recalculation of Safe Yield. Upon request of the Administrative Committee, or on motion of any party and subsequent Court order, Watermaster shall recalculate safe yield of any basin within ULARA. If there has been a material long-term change in storage over a base period (excluding any effects of stored water) in San Fernando Basin the safe yield shall be adjusted by making a corresponding change in native safe yield of the Basin.

8.2.11 Watermaster Report. Watermaster shall prepare annually and (after review and approval by Administrative Committee) cause to be served on all active parties, on or before May 1, a report of hydrologic conditions and Watermaster activities within ULARA during the preceding water year. Watermaster's annual report shall contain such information as may be requested by the Administrative Committee, required by Watermaster Policies and Procedures or specified by subsequent order of this Court.

8.2.12 Active Party List. Watermaster shall maintain at all times a current list of active parties and their addresses.

8.3 Administrative Committee.

8.3.1 Committee to be Formed. An Administrative Committee shall be formed to advise with, request or consent to, and

review actions of Watermaster. Said Administrative Committee shall be composed of one representative of each party having a right to extract ground water from ULARA, apart from the physical solution. Any such party not desiring to participate in such committee shall so advise Watermaster in writing.

8.3.2 Organization and Voting. The Administrative Committee shall organize and adopt appropriate rules and regulations to be included in Watermaster Policies and Procedures. Action of the Administrative Committee shall be by unanimous vote of its members, or of the Members affected in the case of an action which affects one or more basins but less than all of ULARA. In the event of inability of the Committee to reach a unanimous position, the matter may, at the request of Watermaster or any party, be referred to the Court for resolution by subsequent order after notice and hearing.

8.3.3 Function and Powers. The Administrative Committee shall be consulted by Watermaster and shall request or approve all discretionary Watermaster determinations. In the event of disagreement between Watermaster and the Administrative Committee, the matter shall be submitted to the Court for review and resolution.

8.4 Watermaster Budget and Assessments.

8.4.1 Watermaster's Proposed Budget. Watermaster shall, on or before May 1, prepare and submit to the Administrative Committee a budget for the ensuing water year. The budget shall be determined for each basin separately and allocated between the separate ground water basins. The

total for each basin shall be allocated between the public agencies in proportion to their use of ground water from such basin during the preceding water year.

8.4.2 Objections and Review. Any party who objects to the proposed budget, or to such party's allocable share thereof, may apply to the Court within thirty (30) days of receipt of the proposed budget from Watermaster for review and modification. Any such objection shall be duly noticed to all interested parties and heard within thirty (30) days of notice.

8.4.3 Notice of Assessment. After thirty (30) days from delivery of Watermaster's proposed budget, or after the order of Court settling any objections thereto, Watermaster shall serve notice on all parties to be assessed of the amount of assessment and the required payment schedule.

8.4.4 Payment. All assessments for Watermaster expenses shall be payable on the dates designated in the notice of assessment.

8.5 Review of Watermaster Activities.

8.5.1 Review Procedures. All actions of Watermaster (other than budget and assessment matters, which are provided for in Paragraph 8.4.2) shall be subject to review by the Court on its own motion or on motion by any party, as follows:

8.5.1.1 Noticed Motion. Any party may, by a regularly noticed motion, apply to the Court for review of any Watermaster's action. Notice of such motion shall be served personally or mailed to Watermaster and to all active parties.

8.5.1.2 De Novo Nature of Proceedings. Upon the

filing of any such motion, the Court shall require the moving party to notify the active parties of a date for taking evidence and argument, and on the date so designated shall review de novo the question at issue. Watermaster's findings or decision, if any, may be received in evidence at said hearing, but shall not constitute presumptive or prima facie proof of any fact in issue.

8.5.1.3 Decision. The decision of the Court in such proceeding shall be an appealable supplemental order in this case. When the same is final, it shall be binding upon the Watermaster and all parties.

9. PHYSICAL SOLUTION

9.1 Circumstances Indicating Need for Physical Solution. During the period between 1913 and 1955, when there existed temporary surplus waters in the San Fernando Basin, overlying cities and private overlying landowners undertook to install and operate water extraction, storage and transmission facilities to utilize such temporary surplus waters. If the injunction against interference with the prior and paramount rights of Los Angeles to the waters of the San Fernando and Eagle Rock Basins were strictly enforced, the value and utility of those water systems and facilities would be lost or impaired. It is appropriate to allow continued limited extraction from the San Fernando and Eagle Rock Basins by parties other than Los Angeles, subject to assurance that Los Angeles will be compensated for any cost, expense or loss incurred as a result thereof.

9.2 Prior Stipulated Judgments. Several defendants

heretofore entered into separate stipulated judgments herein, during the period June, 1958 to November, 1965, each of which judgments was subject to the Court's continuing jurisdiction. Without modification of the substantive terms of said prior judgments, the same are categorized and merged into this judgment and superseded hereby in the exercise of the Court's continuing jurisdiction, as follows:

9.2.1 Eagle Rock Basin Parties. Stipulating defendants Foremost and Deep Rock have extracted water from Eagle Rock Basin, whose entire safe yield consist of import return waters of Los Angeles. Said parties may continue to extract water from Eagle Rock Basin to supply their bottled drinking water requirements upon filing all required reports on said extraction with Watermaster and Los Angeles and paying Los Angeles annually an amount equal to $21.78 per acre foot for the first 200 acre feet, and $39.20 per acre foot for any additional water extracted in any water year.

9.2.2 Non-consumptive or Minimal-consumptive Operations. Certain stipulating defendants extract water from San Fernando Basin for uses which are either non-consumptive or have a minimal consumptive impact. Each of said defendants who have a minimal consumptive impact has a connection to the City of Los Angeles water system and purchases annually an amount of water at least equivalent to the consumptive loss of extracted ground water. Said defendants are:

Non-Consumptive

Walt Disney Productions

Sears, Roebuck & Co.

Minimal-Consumptive

Conrock Co., for itself and as successor to California Materials Co.; Constance Ray White and Lee L. White; Mary G. Akmadzich and Peter J. Akmadzich

Livingston Rock & Gravel, for itself and as successor to Los Angeles Land & Water Co.

The nature of each said defendant's water use practices is described in Attachment "B". Subject to required reports to and inspections by Watermaster, each said defendant may continue extractions for said purposes so long as in any year such party continues such non-consumptive or minimal-consumptive use practices.

9.2.3 Abandoned Operations. The following stipulating defendants have ceased extracting water from San Fernando Basin and no further need exists for physical solution in their behalf:

Knickerbocker Plastic Company, Inc.

Carnation Company

Hidden Hills Mutual Water Company

Southern Pacific Railroad Co.

Pacific Fruit Express Co.

9.3 Private Defendants. There are private defendants who installed during the years of temporary surplus relatively substantial facilities to extract and utilize ground waters of San Fernando Basin. Said defendants may continue their extractions for consumptive use up to the indicated annual quantities upon payment of compensation to the appropriate city wherein their use of water is principally located, on the basis of the following physical solution:

9.3.1 Private Defendants and Appropriate Cities. Said private defendants and the cities to which their said extractions shall be charged and to which physical solution payment shall be made are:

			Annual Quantities (acre feet)
Los Angeles	-	Toluca Lake	100
		Sportsman's Lodge	25
		Van de Kamp	120
Glendale	-	Forest Lawn	400
		Southern Service Co.	75
Burbank	-	Valhalla	300
		Lockheed	25

Provided that said private defendants shall not develop, install or operate new wells or other facilities which will increase existing extraction capacities.

9.3.2 Reports and Accounting. All extractions pursuant to this physical solution shall be subject to such reasonable reports and inspections as may be required by Watermaster.

9.3.3 Payment. Water extracted pursuant hereto shall be compensated for by annual payment to Los Angeles, and as agreed upon pursuant to paragraph 9.3.3.2 to Glendale and Burbank, thirty days from day of notice by Watermaster, on the following basis:

9.3.3.1 Los Angeles. An amount equal to what such party would have paid had water been delivered from the distribution system of Los Angeles, less the average energy cost of extraction of ground water by Los Angeles from San Fernando.

9.3.3.2 Glendale or Burbank. An amount equal to

the sum of the amount payable to Los Angeles under paragraph 9.4 hereof and any additional charges or conditions agreed upon by either such city and any private defendant.

9.4 Glendale and Burbank. Glendale and Burbank have each installed, during said years of temporary surplus, substantial facilities to extract and utilize waters of the San Fernando Basin. In addition to the use of such facilities to recover import return water, the distribution facilities of such cities can be most efficiently utilized by relying upon the San Fernando Basin for peaking supplies in order to reduce the need for extensive new surface storage. Glendale and Burbank may extract annual quantities of ground water from the San Fernando Basin, in addition to their rights to import return water or stored water, as heretofore declared, in quantities up to:

Glendale	5,500 acre feet
Burbank	4,200 acre feet;

provided, that said cities shall compensate Los Angeles annually for any such excess extractions over and above their declared rights at a rate per acre foot equal to the average MWD price for municipal and industrial water delivered to Los Angeles during the fiscal year, less the average energy cost of extraction of ground water by Los Angeles from San Fernando Basin during the preceding fiscal year. Provided, further, that ground water extracted by Forest Lawn and Southern Service Co. shall be included in the amount taken by Glendale, and the amount extracted by Valhalla and Lockheed shall be included in the amount taken by Burbank. All water taken by Glendale or Burbank pursuant hereto shall be charged against Los Angeles' rights in the year of such extractions.

In the event of emergency, and upon stipulation or motion and subsequent order of the Court, said quantities may be enlarged in any year.

9.5 San Fernando. San Fernando delivers imported water on lands overlying the San Fernando Basin, by reason of which said city has a right to recover import return water. San Fernando does not have water extraction facilities in the San Fernando Basin, nor would it be economically or hydrologically useful for such facilities to be installed. Both San Fernando and Los Angeles have decreed appropriative rights and extraction facilities in the Sylmar Basin. San Fernando may extract ground water from the Sylmar Basin in a quantity sufficient to utilize its San Fernando Basin import return water credit, and Los Angeles shall reduce its Sylmar Basin extractions by an equivalent amount and receive an offsetting entitlement for additional San Fernando Basin extractions.

9.6 Effective Date. This physical solution shall be effective on October 1, 1978, based upon extractions during water year 1978-79.

10. MISCELLANEOUS PROVISIONS

10.1 Designation of Address for Notice and Service. Each party shall designate the name and address to be used for purposes of all subsequent notices and service herein by a separate designation to be filed with Watermaster within thirty (30) days after Notice of Entry of Judgment has been served. Said designation may be changed from time to time by filing a written notice of such change with the Watermaster. Any party desiring to be relieved of receiving notices of Watermaster activity may file a waiver of

notice on a form to be provided by Watermaster. Thereafter such party shall be removed from the Active Party list. For purposes of service on any party or active party by the Watermaster, by any other party, or by the Court, of any item required to be served upon or delivered to such party or active party under or pursuant to the Judgment, such service shall be made personally or by deposit in the United States mail, first class, postage prepaid, addressed to the designee and at the address in the latest designation filed by such party or active party.

10.2 Notice of Change in Hydrologic Condition -- Sylmar Basin. If Sylmar Basin shall hereafter be in a condition of overdraft due to increased or concurrent appropriations by Los Angeles and San Fernando, Watermaster shall so notify the Court and parties concerned, and notice of such overdraft and the adverse effect thereof on private overlying rights shall be given by said cities as prescribed by subsequent order of the Court, after notice and hearing.

10.3 Judgment Binding on Successors. This Judgment and all provisions thereof are applicable to and binding upon not only the parties to this action, but also upon their respective heirs, executors, administrators, successors, assigns, lessees and licensees and upon the agents, employees and attorneys in fact of all such persons.

10.4 Costs. Ordinary court costs shall be borne by each party, and reference costs shall be borne as heretofore allocated and paid.

DATED: Jan 26, 1979.

Judge of the Superior Court

ATTACHMENT "B"
LIST OF DISMISSED PARTIES

Adams, Catherine

Adair, Lee W.

Anderson, Jesse E.

Anderson, Elizabeth A.

Anderson, Leland H.

Anderson, Bonnie D.

Bank of America, N.T. & S.A., (Trustee)

Becker, Barbara

Beatrice Foods Company

Becker, Bert

Bishop, Alfreda M.

Bishop, William E.

Block, Leonard W.

Block, Margery J.

Burbank C. U. School District

Buck, Rodney E.

California, State of

California Trust Company, (Trustee)

California Trust Company, Trustee for First National Bank of Glendale

Citizens N.T.S. Bank of L.A., Trustee of M. M. Crenshaw

Citizens National Trust & Savings Bank of Los Angeles

Citizens National Trust & Savings Bank of Los Angeles, Trustee, Deed of Trust 3774

Colin Corporation of America

Corporation of America

Corporation of America, Trustee for Bank of America 32

Doe Corporation, 10-50

Doe 10-100

Duckworth, John W., (Estate of)

Equitable Life Assurance Society of the United States

Fidelity Federal Savings & Loan Association

Fitz-Patrick, Ada H.

Fitz-Patrick, C. C.

Frank X. Enderle, Inc., Ltd.

George, Florence H.

George, Elton

Ghiglia, Frank P.

Given, Amelia (Deceased)

Glendale Junior College District of Los Angeles County

Glendale Unified School District

Glenhaven Memorial Park, Inc.

Griffith, Howard Barton

Handorf, August V., Heirs of

Hamm, George

Hicks, Forrest W., Executor of Estate of (California Bank)

Houston-Fearless Corp., The

Industrial Fuel Supply Co.

Intervalley Savings & Loan Association

Julius, Alvin C.

Julius, Louis A.

Kaczmarczyk, Edna M.

Karagozian, Charles

Katna, Nathan as Co-Executor, Estate of Duckworth

Kelley, June

Kelley, Vivyan H.

Kidney, Harry, Deceased, Heirs of

Knapp, Guy, Trustee

Landon, Clara Bartlett

Lentz, Richard

Los Angeles County Flood Control District

Los Angeles Land and Water Company

Los Angeles Trust and Savings Deposit Company (Safe)

Los Angeles Safe Deposit Company, Trustee for Security First National Bank of Los Angeles

Los Angeles Trust and Safe Deposit Company, Trustee for H. Kiener

Lytle, Lydia L.

Massachusetts Mutual Life Insurance Company

Mahannah, E. E.,

Mahannah, Hazel E.

M.C.A., Inc.

Morgan, Blanche M.

Matugan, Nicholas

McDougal, Murray

McDougal, Marian V.

Mellenthin, Helen Louise

Mellenthin, William

Metropolitan Life Insurance Company

Morgan, Kenneth H.

Morgan, Anne

Mulholland Orchard Company

Mutual Life Insurance Company of New York

Northwestern Mutual Life Insurance Company

Oakmont Club

Oakwood Cemetery Association

Pasadena Savings & Loan Association

Paglini, Bruno

Pacific Lighting Corporation

Pierce Brothers Mortuary

Premier Laundry Company, Inc.

Pur-O-Spring Water Company

Renfrew, Mary Mildred

Renfrew, Pleasant Thomas

Reinert, H. C.

Romney, Loureta

Richardson, Helen I.

Richardson, William L.

Security First National Bank of Los Angeles, Trustee

Security First National Bank of Los Angeles, Trustee for L. Schwasser, etc.

Smith, T. A.

Smith, Sidney, Estate of, F. Small, Administrator

Southern California Service Corp., Trustee for Verdugo Savings and Loan Association

Sylmar Properties Inc.

Title Insurance and Trust Co., Trustee for Metropolitan Life Insurance Company, I. 1970

Title Insurance and Trust Co., Trustee for Western Mortgage Company

Title Guarantee & Trustee Company, Trustee

Title Insurance & Trust Company, Trustee for C. Fitz-Patrick

Title Insurance & Trust Company, Trustee for Interstate Savings and Loan Association, 3114

Title Insurance & Trust Company, for Fidelity Savings & Loan Association

Title Insurance & Trust Company for Equitable Life Assurance Society, U.S.

Union Bank & Trust Company of Los Angeles Trustee for H. Becker, et al,

Valliant, Grace C.

Verdugo Savings & Loan Association

Warner Brothers Pictures, Inc.

Warner Ranch Company, Inc.

Wallock, Henry L., As Executor of the Estate of A. Civin

Western Mortgage Company

Wheeland, H. W.

Wilcox, Ray C.

Wine, Constance Julia

Winn, Robert Taylor

Young, Donald M.

Young, Marcia B.

ATTACHMENT "C"
LIST OF DEFAULTED PARTIES

Aetna Life Insurance Company

American Savings & Loan Association

Babikian, Helen

Bank of America, N.T. & S.A., Trustee

Bannan, B. A.

Bannan, Clotilde R.

Berkemeyer, Henry W.

Berkemeyer, Hildur M.

Bell, William M.

Bell, Sallie C.

Borgia, Andrea, Estate of

Borgia, Frances

Brown, Stella M.

Burns, George A.

Burns, Louise J.

California Bank, Trustee to Hollywood State Bank

California Bank, Trustee

Citizens National Bank & Savings Bank of Los Angeles, Trust for W. Beavers

Citizens National Trust & Savings Bank of Los Angeles, Mort. I. 164

Citizens National Trust & Savings Bank of Los Angeles Trustee

Citizens National Trust & Savings Bank of Los Angeles, Co-Trustee for Estate of A. V. Hanford

Clauson, Emma S.

Continental Auxiliary Company (Doe Corporation 1)

Cowlin, Josephine McC.

Cowlin, Donald C.

Cowlin, Dorothy H.

Corporation of America, Trustee for Bank of America, 1. 54

Desco Corp.

Diller, Michael

Erratchuo, Richard

Glendale Towel and Linen Supply Company

Guyer, Irene W.

Herrmann, Emily Louise by Louis T. Herrmann, Successor in Interest

Hicks, Forrest W., Executor of Estate of (California Bank)

Hidden Hills Corporation

Holmgrin, Neva Bartlett

Hope, Lester Townes

Hope, Dolores DeFina

Huston Homes (Doe Corporation 8)

Johnson, William Arthur, Sr. (Doe 11)

Johnson, Grace Lavana (Doe 12)

Jessup, Marguerite R., Trustee (for 6)

Jessup, Marguerite Rice

Jessup, Roger

La Maida, James V. (Doe 10)

La Marda, Tony (La Maida)

Lancaster, Paul E.

Lancaster, William

Land Title Insurance Company, as Trustee

Land Title Insurance Company

Los Angeles Pet Cemetary

Metropolitan Savings & Loan Association of Los Angeles

Monteria Lake Association

Mosher, Eloise V.

Mosher, W. E.

Murray, Merle

Pacific Lighting and Gas Supply Co.

Plemmons, Florence S.

Plemmons, John M.

Polar Water Company

Pryor, Charles

Rauch, Phil

Roger Jessup Farms

Rushworth, Helen

Rushworth, Lester

Schwaiger, Carol A.

Schwaiger, Lester E.

Sealand Investment Corporation, Trustee for Metropolitan Savings & Loan Association

Sealand Investment Corporation

Smith, Florence C. (Plemmons)

Southern Service Company, Ltd.

Stewart, Walter W.

Sun Valley National Bank of Los Angeles

Title Insurance and Trust Co., Trustee T. I. Deed of Trust, I. 31, 32

Title Insurance and Trust Co., Trustee for Intervalley Savings & Loan Association I. 2500

Title Insurance & Trust Co., Trustee for Massachusetts Mutual Life Insurance Co.

Title Insurance and Trust Co.

Title Insurance and Trust Co., Trustee A.

Title Insurance and Trust Co., Trustee for Sun Valley National Bank of Los Angeles

Title Insurance and Trust Co., Trustee for J. McC. Cowlin

Title Insurance and Trust Co., Trustee for P. E. Lancaster

Title Insurance and Trust Co., Trustee T. I., Deed of Trust I. 829

Title Insurance and Trust Co., Trustee for C. R. Banman, et al,

Wheeland, Henry R.

Wheeland, Elizabeth A.

Woodward, E. C., Co-Trustee of the Estate of A. V. Handorf

Wright, Alice M.

Wright, J. Marion

Wright, Ilene Evelyn

Wright, Ralph Carver

ATTACHMENT "D"

DISCLAIMING PARTIES

Andrew Jergens Company, The

Boyar, Mark

Chace, William M.
(dba V.P.I.C.)

DeMille, Cecil B., Estate of

Drewry Photocolor Corp.

Hayes, Hay B. (Hal)

Houston Color Film
Laboratories, Inc.

Krown, Samuel P.

La Canada Irrigation District

Lakeside Golf Club (of Hollywood)

Lakewood Water & Power Company

Mack, Lucille

Mallin Investment Co.

Mulholland, P. & R., Trustees
for R. Wood

Mulholland, Rose

Mulholland, Perry

Mulholland, Thomas

Mureau, Charles

Nathan, Julia N., Trustee

Oakmont Country Club

Platt, George E. Company

Richfield Oil Corporation

Riverwood Ranch Mutual Water
Company

Smith, Benjamin B.

Southern California Edison
Company

Spinks Realty Company

Sportsman's Lodge Banquet
Corporation

Stetson, G. Henry

Technicolor Corporation

Valley Lawn Memorial Park

ATTACHMENT "E"

LIST OF PRIOR STIPULATED JUDGMENTS

PARTY	DATE JUDGMENT FILED
Akmadzich, Mary L.	July 24, 1959
Akmadzich, Peter J.	July 24, 1959
California Materials Company	July 24, 1959
Carnation Company	Nov. 20, 1958
Consolidated Rock Products Co.	July 24, 1959
Hidden Hills Mutual Water Company	March 11, 1965
Knickerbocker Plastic Company, Inc.	Feb. 15, 1960
Livingston Rock & Gravel Co., Inc.	July 24, 1959
Pacific Fruit Express Company	March 11, 1965
Pendleton, Evelyn M., dba Deep Rock Artesian Water Company	Nov. 1, 1965
Sears, Roebuck and Company	June 9, 1958
Southern Pacific Company	March 11, 1965
Sparkletts Drinking Water Corporation	Nov. 1, 1965
Valley Park Corporation	July 24, 1959
Walt Disney Productions	May 15, 1961
White, Constance Ray	Feb. 15, 1960
White, Leo L.	Feb. 15, 1960

ATTACHMENT "F"

STIPULATED

NON-CONSUMPTIVE OR MINIMAL-CONSUMPTIVE USE

PRACTICES

Non-Consumptive Uses

Disney -- extracted ground water is used for air conditioning cooling water in a closed system, which discharges to the channel of the Los Angeles River and is subsequently spread and recharges San Fernando Basin, without measurable diminution or loss.

Sears, Lockheed and Carnation -- extracted ground water, or a portion thereof, is used for air conditioning cooling in a closed system, which discharges to San Fernando Basin through an injection well.

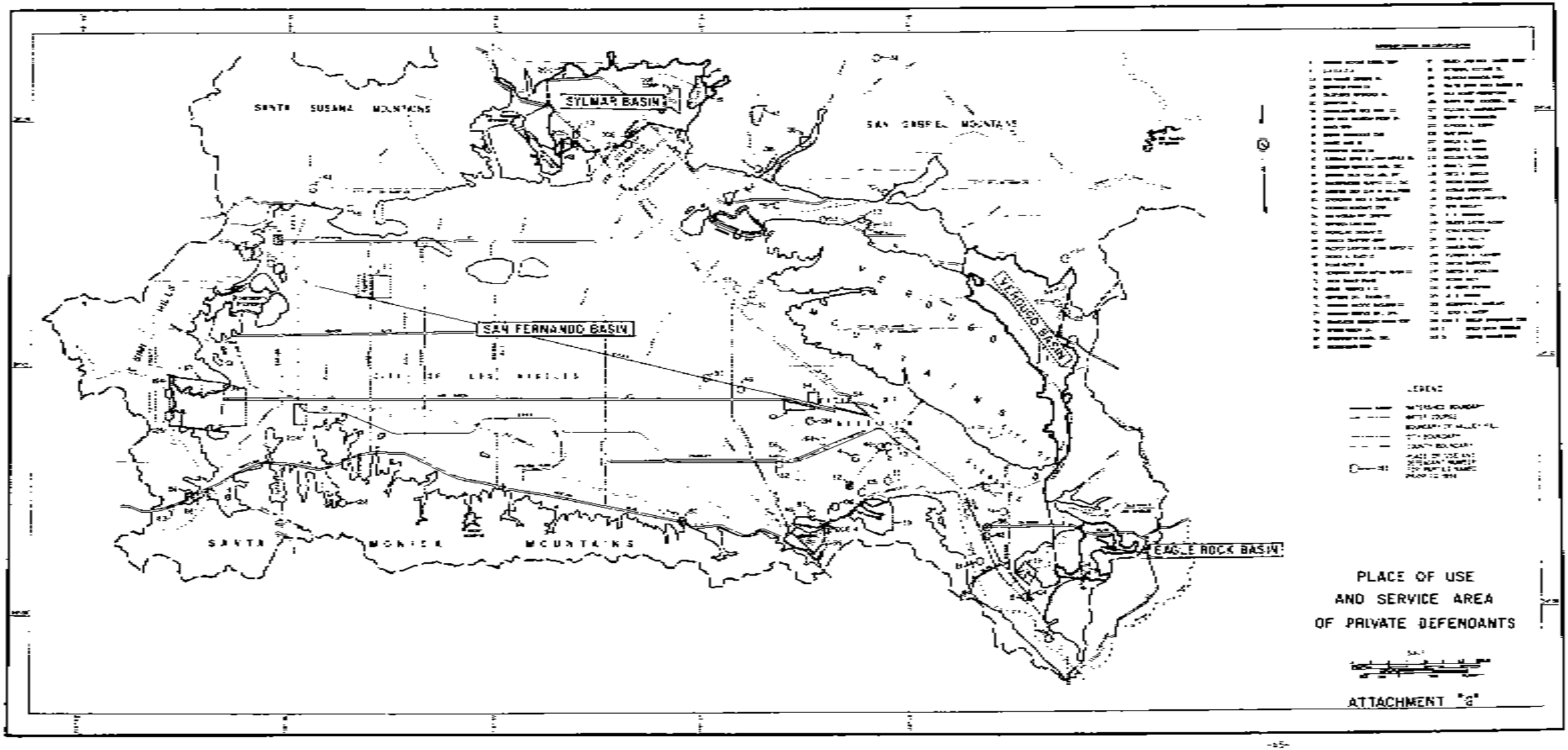
Toluca Lake -- that portion of extracted ground water which is not consumptively used, by evaporation or otherwise, is circulated and passed through the lake to the channel of the Los Angeles River immediately upstream from Los Angeles' spreading grounds, where such water is percolated into the ground water of the Basin without measurable diminution or loss.

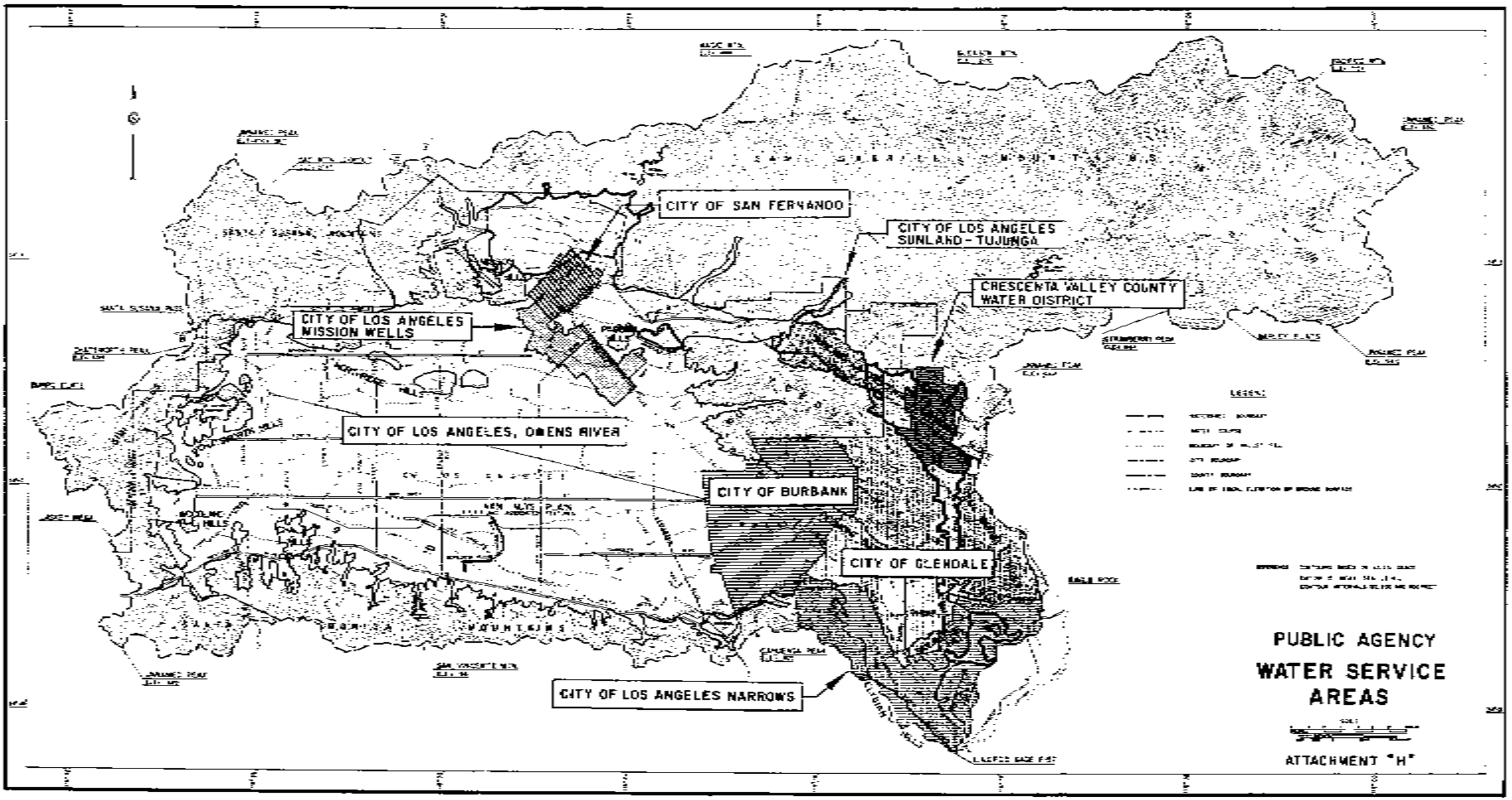
Sportsman's Lodge -- that portion of extracted ground water which is not consumptively used, by evaporation or otherwise, is circulated and passed through fish ponds and returned to channels tributary to Los Angeles River upstream from Los Angeles' spreading grounds, where such water is percolated into the ground water of the Basin without measurable loss.

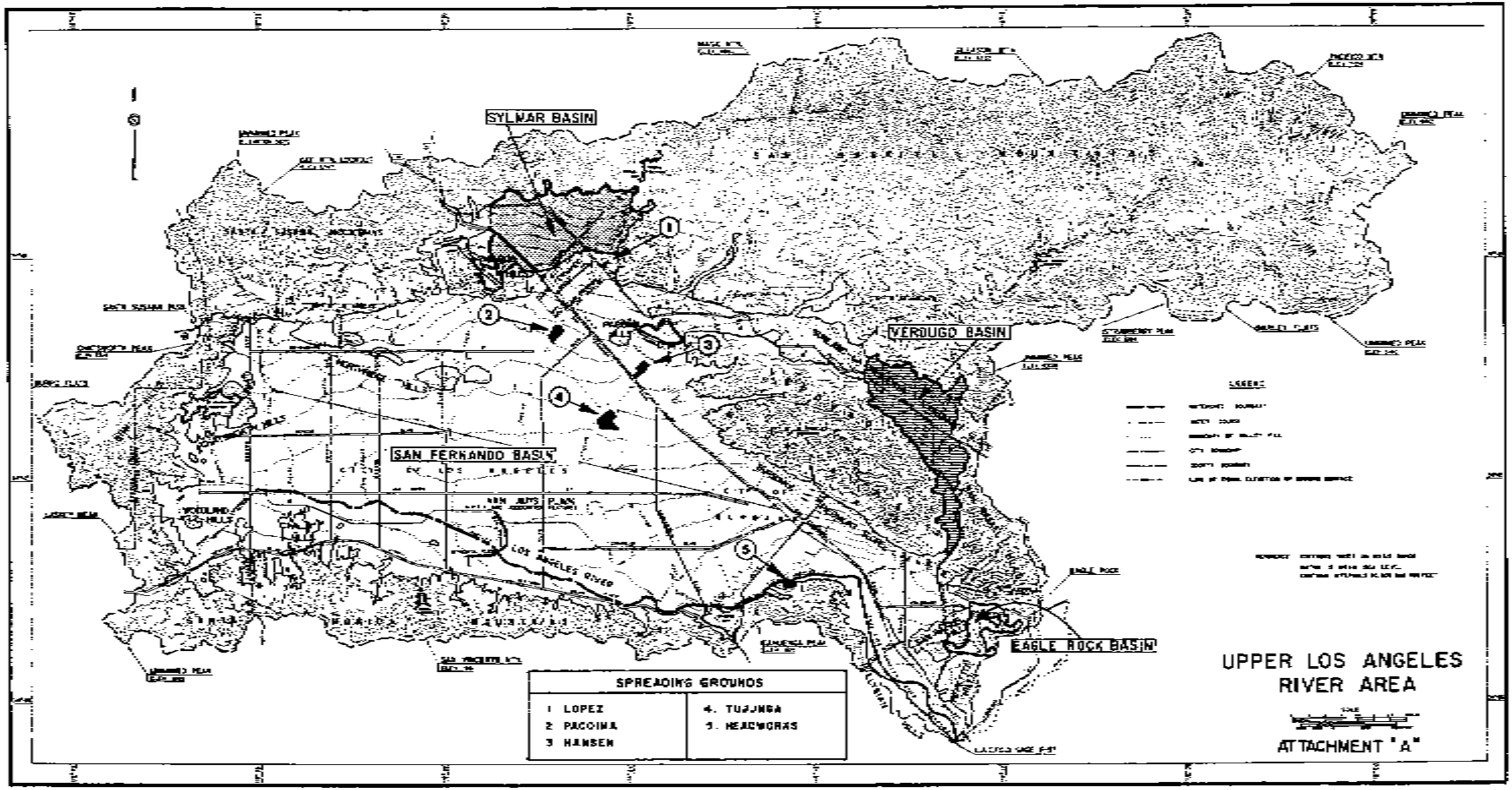
- - - - - - - - - - -

MINIMAL-CONSUMPTIVE USES

Conrock & Livingston -- extracted ground water is used in rock, sand and gravel, and ready-mix concrete operations with net consumptive use of 10%, with the remaining 90% returning to the ground water. Each party purchases surface water from Los Angeles in amounts at least equivalent to such consumptive losses.


SYLMAR BASIN
SAN FERNANDO BASIN
EAGLE ROCK BASIN
SANTA MONICA MOUNTAINS
LEGEND
PLACE OF USE
AND SERVICE AREA
OF PRIVATE DEFENDANTS
ATTACHMENT "G"


CITY OF SAN FERNANDO
CITY OF LOS ANGELES
SUNLAND - TUJUNGA
CRESCENTA VALLEY COUNTY
WATER DISTRICT
CITY OF LOS ANGELES
MISSION WELLS
CITY OF LOS ANGELES, OSENS RIVER
CITY OF BURBANK
CITY OF GLENDALE
CITY OF LOS ANGELES NARROWS
SAN GABRIEL MOUNTAINS
LEGEND:
PUBLIC AGENCY
WATER SERVICE
AREAS
ATTACHMENT "H"


SYLMAR BASIN
VERDUGO BASIN
SAN FERNANDO BASIN
EAGLE ROCK BASIN
LOS ANGELES RIVER
SPREADING GROUNDS
1 LOPEZ
2 PACOIMA
3 HANSEN
4. TUJUNGA
5. HEADWORKS
UPPER LOS ANGELES RIVER AREA
ATTACHMENT "A"

Appendix E

CUWCC Best Management Practices (BMP) Forms

Base Year Data

Agency name: **City of Burbank, PSD** Reporting unit number:

Reporting unit name : **City of Burbank, PSD** **48**

Base Year 2008

BMP 1.3 Metering

Number of unmetered accounts in Base Year 30.00

BMP 3.1 & BMP 3.2 & BMP 3.3 Residential Programs

Number of Single Family Customers 19,940 and Multy Family Customers 20,886 in Base Year

BMP 3.4 WaterSense Specification (WSS) Toilets

Number of Single Family Units 18,145 and Number of Multi Family Units 2,102 prior to 1992

Average number of toilets per Single Family household	2.63	and Multi Family households	1.73
Five year average resale rate of Single Family households	587.60	and Multi Family households	232.6000
Average number of persons per Single Family households	2.50	and Multi Family households	2.50

BMP 4.0 & BMP 5.0 CII & Landscape

Total water use (in Acre Feet) by CII accounts	5,737.00
Number of accounts with dedicated irrigation meters	162.00
Number of CII accounts without meters or with Mixed Use Meters	3,477.00
Number of CII accounts	3,315.00

Comments

BMP 3.4 - First two lines represent total single and multi-family housing units constructed prior to 1992 and not number of custoemrs.

BMP1.1 Operation Practices - Retail Only 2011

Reporting unit name (District name): City of Burbank, PSD

Reporting unit number: 48

Conservation Coordinator: Yes

Contact Information

First Name: Kapil

Last Name: Kulkarni

Title: Marketing Associate

Phone: 818-238-3792

Email: kkulkarni@burbankca.gov

Water Waste Prevention

WW Document Name	WWP File Name	WW Prevention URL	WW Prevention Ordinance Terms Description
Option A Describe the ordinances or terms of service adopted by your agency to meet the water waste prevention requirements of this BMP.			
Option B Describe any water waste prevention ordinances or requirements adopted by your local jurisdiction or regulatory agencies within your service area.	Sustainable-Water-Use-Ordinance-June-8-2009.pdf	http://www.burbankwaterandpower.com/conservation/californias-water-supply-crisis	The Sustainable Water Use Ordinance includes requirements for residents to limit their frequency, timing, and methods of water use for landscape and other domestic purposes, and for businesses to limit their use of water in restaurants and lodging.
Option C Describe any documentation of support for legislation or regulations that prohibit water waste.			
Option D Describe your agency efforts to cooperate with other entities in the adoption or enforcement of local requirements consistent with this BMP.			
Option E Describe your agency support positions with respect to adoption of legislation or regulations that are consistent with this BMP.			
Option F Describe your agency efforts to support local ordinances that establish permits requirements for water efficient design in new development.			

No

BMP1.1 Operation Practices - Retail Only 2011

At Least As effective As

Exemption No

Comments:

BMP1.1 Operation Practices - Retail Only 2012

Reporting unit name (District name): City of Burbank, PSD

Reporting unit number: 48

Conservation Coordinator: Yes

Contact Information

First Name: Kapil

Last Name: Kulkarni

Title: Marketing Associate

Phone: 818-238-3792

Email: kkulkarni@burbankca.gov

Water Waste Prevention

WW Document Name	WWP File Name	WW Prevention URL	WW Prevention Ordinance Terms Description
Option A Describe the ordinances or terms of service adopted by your agency to meet the water waste prevention requirements of this BMP.			
Option B Describe any water waste prevention ordinances or requirements adopted by your local jurisdiction or regulatory agencies within your service area.	Copy_of_Sustainable-Water-Use-Ordinance-June-8-2009.pdf	http://www.burbankwaterandpower.com/conservation/californias-water-supply-crisis	The Sustainable Water Use Ordinance includes requirements for residents to limit their frequency, timing, and methods of water use for landscape and other domestic purposes, and for businesses to limit their use of water in restaurants and lodging.
Option C Describe any documentation of support for legislation or regulations that prohibit water waste.			
Option D Describe your agency efforts to cooperate with other entities in the adoption or enforcement of local requirements consistent with this BMP.			
Option E Describe your agency support positions with respect to adoption of legislation or regulations that are consistent with this BMP.			
Option F Describe your agency efforts to support local ordinances that establish permits requirements for water efficient design in new development.			

No

BMP1.1 Operation Practices - Retail Only 2012

At Least As effective As

Exemption No

Comments:

BMP 1.2 Water Loss Control 2011

Reporting unit name	Reporting unit number:
City of Burbank, PSD	48

AWWA Water Audit

Agency to complete a Water Audit & Balance Using The AWWA Software	No
Uploaded filename:	
Water Audit Validity Score from AWWA spreadsheet:	
Agency Completed Training In The AWWA Water Audit Method	No
Agency Completed Training In The Component Analysis Process	No
Completed/Updated the Component Analysis (at least every 4 years)?	No
Component Analysis Completed/Updated Date	12:00:00 AM

Water Loss Performance

Agency Repaired All Reported Leaks & Breaks To The Extent Cost Effective	Yes

Recording Keeping Requirements Beginning in Year 2

Does your agency maintain a record keeping system for the following?

Date/Time Leak Reported	Yes	Leak Location	Yes
Type of Leaking Pipe Segment or Fitting	Yes	Leak Running Time From Report to Repair	Yes
Leak Volume Estimate	Yes	Cost of Repair	Yes
		Do you have an infrastructure rehabilitation and renewal program ?	Yes

Agency Located and Repaired Unreported Leaks to the Extent Cost Effective	Yes

Type of Program Activities Used to Detect Unreported Leaks

Based on AMI water infrastructure, customer service reps use Itron Save Source and Fixed Network Administration Client software to identify large leaks and notify customers through phone calls, emails, or personal visits.

Does your agency maintain in-house records of audit results or the completed AWWA worksheet for the completed audit which could be forwarded to CUWCC?	No
Does your agency keeps records of each component analysis performed, and incorporates results into future annual standard water balances?	No

Annual Summary Information

Complete the following table with annual summary information (required for reporting years 2-5 only)

Please describe your infrastructure rehabilitation and renewal activity below

AWWA Model

Operational Efficiency Indicator

Apparent Losses per service connection per day:	
Real Losses per service connection per day:	

BMP 1.2 Water Loss Control 2011

Real Losses per length of main per day:	
Real Losses per service connection per day per psi pressure:	
Unavoidable Annual Real Losses(UARL):	
Above, Real Losses=Current Annual Real Losses(CARL):	
Infrastructure Leakage Index (ILI) [CARL/UARL]:	

At Least As Effective As: Yes

Using our AMI water infrastructure, BWP implemented a Leak Detection program in June 2012, and has so far:
Identified more than 220 leaks

Water Leak Report 2012-2013_BWP for CUWCC.xlsx

Exemption: No

Comments:

BMP 1.2 Water Loss Control 2012

Reporting unit name	Reporting unit number:
City of Burbank, PSD	48

AWWA Water Audit

Agency to complete a Water Audit & Balance Using The AWWA Software	No
Uploaded filename:	
Water Audit Validity Score from AWWA spreadsheet:	
Agency Completed Training In The AWWA Water Audit Method	No
Agency Completed Training In The Component Analysis Process	No
Completed/Updated the Component Analysis (at least every 4 years)?	No
Component Analysis Completed/Updated Date	12:00:00 AM

Water Loss Performance

Agency Repaired All Reported Leaks & Breaks To The Extent Cost Effective	Yes

Recording Keeping Requirements Beginning in Year 2

Does your agency maintain a record keeping system for the following?

Date/Time Leak Reported	Yes	Leak Location	Yes
Type of Leaking Pipe Segment or Fitting	Yes	Leak Running Time From Report to Repair	Yes
Leak Volume Estimate	Yes	Cost of Repair	Yes
Do you have an infrastructure rehabilitation and renewal program ?	Yes		

Agency Located and Repaired Unreported Leaks to the Extent Cost Effective	Yes

Type of Program Activities Used to Detect Unreported Leaks

Based on AMI water infrastructure, customer service reps use Itron Save Source and Fixed Network Administration Client software to identify large leaks and notify customers through phone calls, emails, or personal visits.

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Does your agency keeps records of each component analysis performed, and incorporates results into future annual standard water balances?	No

Annual Summary Information

Complete the following table with annual summary information (required for reporting years 2-5 only)

Please describe your infrastructure rehabilitation and renewal activity below

AWWA Model

Operational Efficiency Indicator

Apparent Losses per service connection per day:	
Real Losses per service connection per day:	

BMP 1.2 Water Loss Control 2012

Real Losses per length of main per day:	
Real Losses per service connection per day per psi pressure:	
Unavoidable Annual Real Losses(UARL):	
Above, Real Losses=Current Annual Real Losses(CARL):	
Infrastructure Leakage Index (ILI) [CARL/UARL]:	

At Least As Effective As: Yes

Using our AMI water infrastructure, BWP implemented a Leak Detection program in June 2012, and has so far:
Identified more than 220 leaks

Copy_of_Water_Leak_Report_2012-2013_BWP_for_CUWCC.xlsx

Exemption: No

Comments:

BMP 1.3 Metering With Commodity 2011

Reporting unit name: City of Burbank, PSD

Reporting unit number: 48

Implementation

Does your agency have any unmetered service connections? No

If YES, has your agency completed a meter retrofit plan? No

Enter the number of previously unmetered accounts fitted with meters during reporting year:

Are all new service connections being metered? Yes

Are all new service connections being billed volumetrically? Yes

Has your agency completed and submitted electronically to the Council a written plan, policy or program to test, repair and replace meters? Yes

Meters Matrix

Account Type	Num Of Metered Accounts	Num Of Metered Accounts Read	Num Of Metered Accounts Billed By Volume	Billing Frequency	Estimated Bills Per Year	Meter Readings Per Year
Single-Family	18659	18659	18659	Monthly		
Multi-Family	3419	3419	3419	Monthly		
Commercial	3094	3094	3094	Monthly		
Industrial	119	119	119	Monthly		
Institutional	258	258	258	Monthly		
Fire Lines	893	893	893	Monthly		
Recycled	116	116	116	Monthly		

Number of CII Accounts with Mixed-use Meters

Number of CII Accounts with Mixed-use Meters Retrofitted with Dedicated Irrigation Meters during Reporting Period

Feasibility Study

Has your agency conducted a feasibility study to assess the merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters? Yes

If YES, please fill in the following information:

A. When was the Feasibility Study conducted 10/1/2010

Describe, upload or provide an electronic link to the Feasibility Study Upload File

BMP 1.3 Metering With Commodity 2011

The Recycled Water Master Plan (RWMP) was first developed in 2007 and updated in 2010. The RWMP outlines a plan to increase the usage of recycled water by businesses to more than 1 billion gallons, or more than 15% of our total system sales, by 2013.

2010_Recycled_Water_Master_Plan.pdf

http://www.burbankwaterandpower.com/download/2010_Recycled_Water_Master_Plan.pdf

At Least As Effective As: No

Exemption: No

Comments:

BMP 1.3 Metering With Commodity 2012

Reporting unit name: City of Burbank, PSD

Reporting unit number: 48

Implementation

Does your agency have any unmetered service connections? No

If YES, has your agency completed a meter retrofit plan? No

Enter the number of previously unmetered accounts fitted with meters during reporting year:

Are all new service connections being metered? Yes

Are all new service connections being billed volumetrically? Yes

Has your agency completed and submitted electronically to the Council a written plan, policy or program to test, repair and replace meters? Yes

Meters Matrix

Account Type	Num Of Metered Accounts	Num Of Metered Accounts Read	Num Of Metered Accounts Billed By Volume	Billing Frequency	Estimated Bills Per Year	Meter Readings Per Year
Single-Family	18651	18651	18651	Monthly		
Multi-Family	3429	3429	3429	Monthly		
Commercial	3090	3090	3090	Monthly		
Industrial	116	116	116	Monthly		
Institutional	246	246	246	Monthly		
Fire Lines	903	903	903	Monthly		
Recycled	134	134	134	Monthly		

Number of CII Accounts with Mixed-use Meters

Number of CII Accounts with Mixed-use Meters Retrofitted with Dedicated Irrigation Meters during Reporting Period

Feasibility Study

Has your agency conducted a feasibility study to assess the merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters? Yes

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The Recycled Water Master Plan (RWMP) was first developed in 2007 and updated in 2010. The RWMP outlines a plan to increase the usage of recycled water by businesses to more than 1 billion gallons, or more than 15% of our total system sales, by 2013.

Copy_of_2010_Recycled_Water_Master_Plan.pdf

http://www.burbankwaterandpower.com/download/2010_Recycled_Water_Master_Plan.pdf

At Least As Effective As: No

Exemption: No

Comments:

BMP 1.4 Retail Conservation Pricing 2011

Reporting unit name: City of Burbank, PSD

Reporting unit number: 48

Implementation (Water Rate Structure)

Enter the Water Rate Structures that are assigned to the majority of your customers, by customer class

Customer Class	Water Rate Type	Total Revenue Comodity Charges	Total Revenue Fixed Carges
Single-Family	Increasing Block	9438421.9	2223129.54
Multi-Family	Uniform	4275806.29	408654.14
Commercial	Uniform	3428362.72	377785.31
Industrial	Uniform	707879.42	17773.94
Institutional	Uniform	543536.81	26576.46
		18394007.14	**3053919.39**

Implementation (Conservation Pricing Option)

Enter the Water Rate Structures that are assigned to the majority of your customers, by customer class

[V] Use Annual Revenue As Reported

[ ] Use Canadian Water Wastewater (CWWA) Association Rate Design Model

[ ] Use 3 years average instead of most recent year

If CWWA is selected, please upload spreadsheet here.

Canadian Water and Wastewater Association

Retail Waste Water (Sewer) Rate Structure by Customer Class

Agency Provide Sewer Service: No

Select the Retail Waste Water (Sewer) Rate Structure assigned to the majority of your customers within a specific customer class.

At Least As Effective As: No

Explanation of At Least As Effective As

Uploaded document

Exemption: No

Comments:

BMP 1.4 Retail Conservation Pricing 2012

Reporting unit name: City of Burbank, PSD

Reporting unit number: 48

Implementation (Water Rate Structure)

Enter the Water Rate Structures that are assigned to the majority of your customers, by customer class

Customer Class	Water Rate Type	Total Revenue Comodity Charges	Total Revenue Fixed Carges
Single-Family	Increasing Block	10629435.99	2386162.64
Multi-Family	Uniform	3983141.17	442265.8
Commercial	Uniform	2993751.55	399428.31
Industrial	Uniform	583467.47	18381.51
Institutional	Uniform	348528.31	29334.12
		18538324.49	**3275572.38**

Implementation (Conservation Pricing Option)

Enter the Water Rate Structures that are assigned to the majority of your customers, by customer class

- [V] Use Annual Revenue As Reported
- [ ] Use Canadian Water Wastewater (CWWA) Association Rate Design Model
- [ ] Use 3 years average instead of most recent year

If CWWA is selected, please upload spreadsheet here.

Canadian Water and Wastewater Association

Retail Waste Water (Sewer) Rate Structure by Customer Class

Agency Provide Sewer Service: No

Select the Retail Waste Water (Sewer) Rate Structure assigned to the majority of your customers within a specific customer class.

At Least As Effective As: No

Explanation of At Least As Effective As

Uploaded document

Exemption: No

Comments:

BMP 2.1 Public Outreach 2011

Reporting unit name | Reporting unit # 48

City of Burbank, PSD / Retail Only

Does your agency perform Public Outreach programs? Yes

The list of wholesale agencies performing public outreach which can be counted to help the agency comply with the BMP

Please provide the name of Agency if not CUWCC Group1 members

Public Information Programs List

Did at least one contact take place duringeach quarter of the reporting year? Yes

Number of Public Contacts	Public Information Programs Name
4	Newsletter articles on conservation
12	Flyers and/or brochures (total copies), bill stuffers, messages printed on bill, information
6	Website
4	Landscape water conservation media campaigns
12	General water conservation information

Contact with the Media Yes

The list of wholesale agencies performing public outreach which can be counted to help the agency comply with the BMP

Please provide the name of Agency if not CUWCC Group1 members

Did at least one contact take place during each quarter of the reporting year? Yes

Number of Media Contacts	Public Outreach Media Contact Name List
2	Articles or stories resulting from outreach
5	News releases

Wholesale Agency Website Updates

The list of wholesale agencies performing public outreach which can be counted to help the agency comply with the BMP No

Please provide the name of Agency if not CUWCC Group1 members

IAgency Website Updates

BMP 2.1 Public Outreach 2011

Enter your agency's URL (website address): http://www.burbankwaterandpower.com/

Describe a minimum of four water conservationrelated updates to your agency's website thattook place during the year:

Promotion of annual Living Wise program
Sponsorship of City of Burbank Earth Day festival
Update on Sustainable Water Use Ordinance
Notification of savewater! award in December 2011 for Water Conservation programs

Did at least one Website Update take place duringeach quarter of the reporting year? Yes

Public Information Programs Annual Budget

Enter budget for public outreach programs. You may enter total budget in a single line or brake the budget into discretecategories by entering many rows. Please indicate if personnel costs are included in the entry.

Annual Budget Category	Annual Budget Amount	Personal Cost Included?	Comments
	400000	V	Includes staff time for community and other events, as well as marketing materials and other costs

Public Information Expenses

Enter expenses for public outreach programs. Please include the same kind of expenses you included in the question relatedto your budget (Section 2.1.7, above). For example, if you included personnel costs in the budget entered above, be sure to include them here as well.

Public Outreach Expense Category	Expense Amount	Personal Cost Included?
Labor	300000	V
Other	100000	

Additional Public Information Program

Please report additional public information contacts. List these additional contacts in order of howyour agency views their importance / effectiveness with respect to conserving water, with the mostimportant/ effective listed first (where 1 = most important).

Were there additional Public Outreach efforts? Yes

Public Outreach Additional Information

Social Marketing Programs

Branding Does your agency have a water conservation"brand," "theme" or mascot? No

Describe the brand, theme or mascot.

Market Research Have you sponsored or participated inmarket research to refine your message? Yes

Market Research Topic: Customer satisfaction surveys, in order to measure and improve our water and energy services

Brand Message: BWP is always there for you.

Brand Mission Statement: BWP is a community owned utility providing safe, reliable, affordable, and sustainable service.

Community Committees

Do you have a community conservation committee? Yes

Enter the names of the community committees: Sustainable Burbank Commission

Training

BMP 2.1 Public Outreach 2011

Social Marketing Expenditures

Public Outreach Social Marketing Expenses

Partnering Programs

	Name	Type of Program
	CLCA?	
V	Green Building Programs?	
	Master Gardeners?	
	Cooperative Extension?	
	Local Colleges?	
	Other	

Retail and wholesale outlet; name(s) and type(s) of programs:

Partnering Programs - Newsletters

Number of newsletters per year	4
Number of customers per year	49000

Partnering with Other Utilities

Describe other utilities your agency partners with, including electrical utilities	BWP is a member of the Metropolitan Water District, and participates in

Conservation Gardens

Describe water conservation gardens at your agency or other high traffic areas or new homes	BWP has a Community Demonstration Gardens program, which provides grants of up to $15,000 for native and drought tolerant plant gardens at

Landscape contests or awards

Describe water wise landscape contest or awards program conducted by your agency	
Additional Programs supported by Agency but not mentioned above:	

At Least As Effective As No

Explanation of At Least As Effective As

Uploaded document

Exemption No

Comments

BMP 2.1 Public Outreach 2012

Reporting unit name | Reporting unit # 48

City of Burbank, PSD / Retail Only

Does your agency perform Public Outreach programs? Yes

The list of wholesale agencies performing public outreach which can be counted to help the agency comply with the BMP

Please provide the name of Agency if not CUWCC Group1 members

Public Information Programs List

Did at least one contact take place duringeach quarter of the reporting year? Yes

Number of Public Contacts	Public Information Programs Name
4	Newsletter articles on conservation
12	Flyers and/or brochures (total copies), bill stuffers, messages printed on bill, information
6	Website
4	Landscape water conservation media campaigns
12	General water conservation information

Contact with the Media Yes

The list of wholesale agencies performing public outreach which can be counted to help the agency comply with the BMP

Please provide the name of Agency if not CUWCC Group1 members

Did at least one contact take place during each quarter of the reporting year? Yes

Number of Media Contacts	Public Outreach Media Contact Name List
3	Articles or stories resulting from outreach
1	News releases

Wholesale Agency Website Updates

The list of wholesale agencies performing public outreach which can be counted to help the agency comply with the BMP No

Please provide the name of Agency if not CUWCC Group1 members

IAgency Website Updates

BMP 2.1 Public Outreach 2012

Enter your agency's URL (website address): http://www.burbankwaterandpower.com/

Describe a minimum of four water conservationrelated updates to your agency's website thattook place during the year:

Promotion of EcoCampus Dedication Event in January 2012
Notice of Annual Water Quality Report in June 2012
Update on Sustainable Water Use Ordinance
Launch of Go Native! Turf Removal program in November 2012

Did at least one Website Update take place duringeach quarter of the reporting year? Yes

Public Information Programs Annual Budget

Enter budget for public outreach programs. You may enter total budget in a single line or brake the budget into discretecategories by entering many rows. Please indicate if personnel costs are included in the entry.

Annual Budget Category	Annual Budget Amount	Personal Cost Included?	Comments
	400000	V	

Public Information Expenses

Enter expenses for public outreach programs. Please include the same kind of expenses you included in the question relatedto your budget (Section 2.1.7, above). For example, if you included personnel costs in the budget entered above, be sure to include them here as well.

Public Outreach Expense Category	Expense Amount	Personal Cost Included?
Labor	300000	V
Other	100000	V

Additional Public Information Program

Please report additional public information contacts. List these additional contacts in order of howyour agency views their importance / effectiveness with respect to conserving water, with the mostimportant/ effective listed first (where 1 = most important).

Were there additional Public Outreach efforts? Yes

Public Outreach Additional Information

Social Marketing Programs

Branding Does your agency have a water conservation"brand," "theme" or mascot? No

Describe the brand, theme or mascot.

Market Research Have you sponsored or participated inmarket research to refine your message? Yes

Market Research Topic: Customer satisfaction surveys, in order to measure and improve our water and energy services.

Brand Message: BWP is always there for you.

Brand Mission Statement: BWP is a community owned utility providing safe, reliable, sustainable, and affordable service.

Community Committees

Do you have a community conservation committee? Yes

Enter the names of the community committees: Sustainable Burbank Commission

Training

BMP 2.1 Public Outreach 2012

Training Type	Number of Trainings	Number of Attendees	Description of Other
3	1	20	Landscaping workshop taught by a professional horticulturalist

Social Marketing Expenditures

Public Outreach Social Marketing Expenses

Partnering Programs

	Name	Type of Program
	CLCA?	
V	Green Building Programs?	
	Master Gardeners?	
	Cooperative Extension?	
	Local Colleges?	
	Other	

Retail and wholesale outlet; name(s) and type(s) of programs:

Partnering Programs - Newsletters

Number of newsletters per year: 4

Number of customers per year: 49000

Partnering with Other Utilities

Describe other utilities your agency partners with, including electrical utilities: BWP is a member of the Metropolitan Water District, and participates in

Conservation Gardens

Describe water conservation gardens at your agency or other high traffic areas or new homes: BWP has a Community Demonstration Gardens program, which provides grants of up to $15,000 for native and drought tolerant plant gardens at

Landscape contests or awards

Describe water wise landscape contest or awards program conducted by your agency

Additional Programs supported by Agency but not mentioned above:

At Least As Effective As: No

Explanation of At Least As Effective As

Uploaded document

BMP 2.1 Public Outreach **2012**

Exemption No

Comments

WMP 2.2 School Education Programs 2011

Reporting unit name: City of Burbank, PSD / Retail Only

Reporting unit #: 48

Does your agency perform Public Outreach programs? Yes

The list of wholesale agencies performing school education programs which can be counted to help the agency comply with the BMP

Metropolitan Water District of SC

Please provide the name of Agency if not CUWCC Group1 members

V Materials meet state education framework requirements? Description: The Living Wise kit, developed by Resource Action Programs, satisfies with numerous State Curriculum Standards and helps teachers meet their teaching requirements. Each year, the program materials are updated to reflect the latest standards.

V Materials distributed to K-6 Students? Description: Each kit includes a low flow showerhead, low flow kitchen aerator, toilet leak detector tablets, flow rate test bag, a compact fluorescent lamp, and other energy-saving and educational materials.

Number of students reached: 1184

Materials distributed to 7-12 Students? (optional) Description: No materials are provided directly to 7-12 students, but these students have access to the kits if they have a younger sibling. In addition, these students can access our other educational materials, including our quarterly newsletter, Currents.

Annual budget for school education program: 55000.00

Description of all other water supplier educationprograms: BWP provides quarterly tours of our EcoCampus to students and adults, where we showcase our native and drought tolerant plants, and stormwater capture systems. BWP also provides staffing for children's booths at our annual and other City events.

School Programs Activities

Classroom Presentation:

Number of presentation: Number of attendees:

Describe the topics covered in your classroom presentations:

Large group assemblies:

Number of presentation: Number of attendees:

Children's water festivals or other events:

Number of presentation: Number of attendees:

Cooperative efforts with existing science/water education programs (various workshops, science fair awardsor judging) and follow-up:

Number of presentation: Number of attendees:

Other methods of disseminating information (i.e. themed age-appropriate classroom loaner kits):

Description: Number distributed:

Staffing children's booths at events & festivals:

Number of booths: Number of attendees:

Water conservation contests such as poster and photo:

WMP 2.2 School Education Programs 2011

Description | Number of participants

Offer monetary awards/funding or scholarships to students:

Number offered | Total funding

Teacher training workshops:

Number of presentation | Number of attendees

Fund and/or staff student field trips to treatment facilities, recycling facilities, water conservation gardens,etc.:

Number of tours or fieldtrips | Number of participants

College internships in water conservation offered:

Number of internship | Total funding

Career Fairs / Workshops:

Number of presentation | Number of attendees

Additional program(s) supported by agency but not mentioned above:

Description	Number of events	Number of participants

Comments

At Least As Effective As: No

Exemption: No

WMP 2.2 School Education Programs 2012

Reporting unit name | Reporting unit # 48

City of Burbank, PSD / Retail Only

Does your agency perform Public Outreach programs? Yes

The list of wholesale agencies performing school education programs which can be counted to help the agency comply with the BMP

Metropolitan Water District of SC

Please provide the name of Agency if not CUWCC Group1 members

V Materials meet state education framework requirements? Description: The Living Wise kit, developed by Resource Action Programs, satisfies with numerous State Curriculum Standards and helps teachers meet their teaching requirements. Each year, the program materials are updated to reflect the latest standards.

V Materials distributed to K-6 Students? Description: Each kit includes a low flow showerhead, low flow kitchen aerator, toilet leak detector tablets, flow rate test bag, a compact fluorescent lamp, and other energy-saving and educational materials.

Number of students reached: 1208

V Materials distributed to 7-12 Students? (optional) Description: No materials are provided directly to 7-12 students, but these students have access to the kits if they have a younger sibling. In addition, these students can access our other educational materials, including our quarterly newsletter, Currents.

Annual budget for school education program: 55000.00

Description of all other water supplier educationprograms: BWP provides quarterly tours of our EcoCampus to students and adults, where we showcase our native and drought tolerant plants, and stormwater capture systems. BWP also provides staffing for children's booths at our annual and other City events.

School Programs Activities

Classroom Presentation:

Number of presentation | Number of attendees

Describe the topics covered in your classroom presentations:

Large group assemblies:

Number of presentation | Number of attendees

Children's water festivals or other events:

Number of presentation | Number of attendees

Cooperative efforts with existing science/water education programs (various workshops, science fair awardsor judging) and follow-up:

Number of presentation | Number of attendees

Other methods of disseminating information (i.e. themed age-appropriate classroom loaner kits):

Description | Number distributed

Staffing children's booths at events & festivals:

Number of booths | Number of attendees

Water conservation contests such as poster and photo:

WMP 2.2 School Education Programs 2012

Description | Number of participants

Offer monetary awards/funding or scholarships to students:

Number offered | Total funding

Teacher training workshops:

Number of presentation | Number of attendees

Fund and/or staff student field trips to treatment facilities, recycling facilities, water conservation gardens,etc.:

Number of tours or fieldtrips | Number of participants

College internships in water conservation offered:

Number of internship | Total funding

Career Fairs / Workshops:

Number of presentation | Number of attendees

Additional program(s) supported by agency but not mentioned above:

Description	Number of events	Number of participants

Comments

At Least As Effective As: No

Exemption: No

Reporting Unit Name

City of Burbank, PSD

Retail Only

Reporting Unit ID#:

48

2011 Non Potable Water Sources

Service Area Population: 103885

	Local Watershed	AF / Year	Water Supply Type	Water Supply Description
		1575.24	Recycled Non Potable	treated at Burbank Water Reclamation Plant (WRP)
		1575.24		

Reporting Unit Name

City of Burbank, PSD

Retail Only

Reporting Unit ID#:

48

2012 Non Potable Water Sources

Service Area Population: 104391

	Local Watershed	AF / Year	Water Supply Type	Water Supply Description
		1904.34	Recycled Non Potable	from Burbank Water Reclamation Plant (WRP)
		1904.34		

Reporting Unit Name

City of Burbank, PSD

Retail Only

Reporting Unit ID#:

48

2011 Potable Water Sources

Service Area Population: 103885

	Imported	AF / Year	Water Supply Type	Water Supply Description
		7714.90	Surface	MWD Treated
		7714.90		

	Local Watershed	AF / Year	Water Supply Type	Water Supply Description
		10138.00	Groundwater	Groundwater Treated at Burbank Operable Unit (BOU)
		10138.00		

Reporting Unit Name

City of Burbank, PSD

Retail Only

Reporting Unit ID#:

48

2012 Potable Water Sources

Service Area Population: 104391

Imported	AF / Year	Water Supply Type	Water Supply Description
	8325.10	Surface	MWD Treated
	8325.10		

Local Watershed	AF / Year	Water Supply Type	Water Supply Description
	10462.09	Groundwater	Groundwater Treated at Burbank Operable Unit (BOU)
	10462.09		

Reporting Unit Name

City of Burbank, PSD

Retail Only

Reporting Unit ID#:

48

2011 Non Potable Water Uses

Billed:

CustomerType	Metered Accounts	Metered Water Delivered AF/Year	Un-Metered Accounts	Un-Metered Water Delivered AF/Year	Description
Recycled	116	1506.73	0	0.00	
	116	**1506.73**	**0**	**0.00**	

Un-Billed:

Reporting Unit Name

City of Burbank, PSD

Retail Only

Reporting Unit ID#:

48

2012 Non Potable Water Uses

Billed:

CustomerType	Metered Accounts	Metered Water Delivered AF/Year	Un-Metered Accounts	Un-Metered Water Delivered AF/Year	Description
Recycled	134	2031.69	0	0.00	
	134	**2031.69**	**0**	**0.00**	

Un-Billed:

Reporting Unit Name

City of Burbank, PSD

Retail Only

Reporting Unit ID#:

48

2011 Potable Water Uses

Billed:

CustomerType	Metered Accounts	Metered Water Delivered AF/Year	Un-Metered Accounts	Un-Metered Water Delivered AF/Year	Description
Single-Family	18659	8515.84	0	0.00	
Multi-Family	3419	4155.22	0	0.00	
Commercial	3094	3336.55	0	0.00	
Industrial	119	673.22	0	0.00	
Institutional	258	596.06	0	0.00	
Fire Lines	893	7.68	0	0.00	
	26442	**17284.57**	**0**	**0.00**	

Un-Billed:

Reporting Unit Name

City of Burbank, PSD

Retail Only

Reporting Unit ID#:

48

2012 Potable Water Uses

Billed:

CustomerType	Metered Accounts	Metered Water Delivered AF/Year	Un-Metered Accounts	Un-Metered Water Delivered AF/Year	Description
Single-Family	18651	9146.66	0	0.00	
Multi-Family	3429	4380.85	0	0.00	
Commercial	3090	3474.10	0	0.00	
Industrial	116	725.73	0	0.00	
Institutional	246	593.63	0	0.00	
Fire Lines	903	10.60	0	0.00	
	26435	**18331.57**	**0**	**0.00**	

Un-Billed:

CUWCC BMP Coverage Report 2012

48 City of Burbank, PSD

GPCD in 2006: 184.18

GPCD in 2012: 160.67

GPCD Target for 2018: 151.03

Biennial GPCD Compliance Table

ON TRACK

		Target		Highest Acceptable Bound	
Year	Report	% Base	GPCD	% Base	GPCD
2010	1	96.4%	**177.55**	100%	**184.18**
2012	2	92.8%	**170.92**	96.4%	**177.55**
2014	3	89.2%	**164.29**	92.8%	**170.92**
2016	4	85.6%	**157.66**	89.2%	**164.29**
2018	5	82.0%	**151.03**	82.0%	**151.03**

CUWCC BMP Retail Coverage Report 2011

Foundational Best Managemant Practices for Urban Water Efficiency

BMP 1.1 Operation Practices

On Track

48 City of Burbank, PSD

1. Conservation Coordinator provided with necessary resources to implement BMPs?

Name:	Kapil Kulkarni
Title:	Marketing Associate
Email:	kkulkarni@burbankca.gov

2. Water Waste Prevention Documents

WW Document Name	WWP File Name	WW Prevention URL	WW Prevention Ordinance Terms Description
Option A Describe the ordinances or terms of service adopted by your agency to meet the water waste prevention requirements of this BMP.			
Option B Describe any water waste prevention ordinances or requirements adopted by your local jurisdiction or regulatory agencies within your service area.	Sustainable-Water-Use-Ordinance-June-8-2009.pdf	http://www.burbankwaterandpower.com/conservation/californias-water-supply-crisis	The Sustainable Water Use Ordinance includes requirements for residents to limit their frequency, timing, and methods of water use for landscape and other domestic purposes, and for businesses to limit their use of water in restaurants and lodging.
Option C Describe any documentation of support for legislation or regulations that prohibit water waste.			
Option D Describe your agency efforts to cooperate with other entities in the adoption or enforcement of local requirements consistent with this BMP.			
Option E Describe your agency support positions with respect to adoption of legislation or regulations that are consistent with this BMP.			
Option F Describe your agency efforts to support local ordinances that establish permits requirements for water efficient design in new development.			

At Least As effective As No

CUWCC BMP Retail Coverage Report 2011

Foundational Best Managemant Practices for Urban Water Efficiency

BMP 1.1 Operation Practices **On Track**

Exemption

Comments:

CUWCC BMP Retail Coverage Report 2012

Foundational Best Managemant Practices for Urban Water Efficiency

BMP 1.1 Operation Practices

On Track

48 City of Burbank, PSD

1. Conservation Coordinator provided with necessary resources to implement BMPs?

Name:	Kapil Kulkarni
Title:	Marketing Associate
Email:	kkulkarni@burbankca.gov

2. Water Waste Prevention Documents

WW Document Name	WWP File Name	WW Prevention URL	WW Prevention Ordinance Terms Description
Option A Describe the ordinances or terms of service adopted by your agency to meet the water waste prevention requirements of this BMP.			
Option B Describe any water waste prevention ordinances or requirements adopted by your local jurisdiction or regulatory agencies within your service area.	Copy_of_Sustainable-Water-Use-Ordinance-June-8-2009.pdf	http://www.burbankwaterandpower.com/conservation/californias-water-supply-crisis	The Sustainable Water Use Ordinance includes requirements for residents to limit their frequency, timing, and methods of water use for landscape and other domestic purposes, and for businesses to limit their use of water in restaurants and lodging.
Option C Describe any documentation of support for legislation or regulations that prohibit water waste.			
Option D Describe your agency efforts to cooperate with other entities in the adoption or enforcement of local requirements consistent with this BMP.			
Option E Describe your agency support positions with respect to adoption of legislation or regulations that are consistent with this BMP.			
Option F Describe your agency efforts to support local ordinances that establish permits requirements for water efficient design in new development.			

At Least As effective As No

CUWCC BMP Retail Coverage Report 2012

Foundational Best Managemant Practices for Urban Water Efficiency

BMP 1.1 Operation Practices **On Track**

Exemption

Comments:

CUWCC BMP Coverage Report 2011

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.2 Water Loss Control **On Track**

48 City of Burbank, PSD

Completed Standard Water Audit Using AWWA Software?	No
AWWA File provided to CUWCC?	No
AWWA Water Audit Validity Score?	
Complete Training in AWWA Audit Method	No
Complete Training in Component Analysis Process?	No
Component Analysis?	No
Repaired all leaks and breaks to the extent cost effective?	Yes
Locate and Repar unreported leaks to the extent cost effective?	Yes
Maintain a record keeping system for the repair of reported leaks, including time of report, leak location, type of leaking pipe segment or fitting, and leak running time from report to repair.	No

Provided 7 Types of Water Loss Control Info

Leaks Repairs	Value Real Losses	Value Apparent Losses	Miles Surveyed	Press Reduction	Cost Of Interventions	Water Saved (AF)

At Least As Effective As Yes Water Leak Report 2012-2013_BWP for CUWCC.xlsx

Using our AMI water infrastructure, BWP implemented a Leak Detection program in June 2012, and has so far:
Identified more than 220 leaks
Contacted more than 220 customers
Fixed more than 180 leaks
Saved more than 8 million gallons

Exemption 0

Comments:

CUWCC BMP Coverage Report 2012

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.2 Water Loss Control **On Track**

48 City of Burbank, PSD

Completed Standard Water Audit Using AWWA Software?	No
AWWA File provided to CUWCC?	No
AWWA Water Audit Validity Score?	
Complete Training in AWWA Audit Method	No
Complete Training in Component Analysis Process?	No
Component Analysis?	No
Repaired all leaks and breaks to the extent cost effective?	Yes
Locate and Repar unreported leaks to the extent cost effective?	Yes
Maintain a record keeping system for the repair of reported leaks, including time of report, leak location, type of leaking pipe segment or fitting, and leak running time from report to repair.	No

Provided 7 Types of Water Loss Control Info

Leaks Repairs	Value Real Losses	Value Apparent Losses	Miles Surveyed	Press Reduction	Cost Of Interventions	Water Saved (AF)

At Least As Effective As Yes Copy_of_Water_Leak_Report_2012-2013_BWP_for_CUWCC.xlsx

Using our AMI water infrastructure, BWP implemented a Leak Detection program in June 2012, and has so far:
Identified more than 220 leaks
Contacted more than 220 customers
Fixed more than 180 leaks
Saved more than 8 million gallons

Exemption 0

Comments:

CUWCC BMP Coverage Report 2011

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.3 Metering With Commodity

On Track

48 City of Burbank, PSD

Numbered Unmetered Accounts	No
Metered Accounts billed by volume of use	Yes
Number of CII Accounts with Mixed Use Meters	
Conducted a feasibility study to assess merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters?	Yes
Feasibility Study provided to CUWCC?	Yes

Date: 10/1/2010

Uploaded file name: 2010_Recycled_Water_Master_Plan.pdf

Completed a written plan, policy or program to test, repair and replace meters	Yes
At Least As Effective As	No
Exemption	No

Comments:

CUWCC BMP Coverage Report 2012

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.3 Metering With Commodity

On Track

48 City of Burbank, PSD

Numbered Unmetered Accounts	No
Metered Accounts billed by volume of use	Yes
Number of CII Accounts with Mixed Use Meters	
Conducted a feasibility study to assess merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters?	Yes
Feasibility Study provided to CUWCC?	Yes

Date: 10/1/2010

Uploaded file name: Copy_of_2010_Recycled_Water_Master_Plan.pdf

Completed a written plan, policy or program to test, repair and replace meters	Yes
At Least As Effective As	No
Exemption	No

Comments:

CUWCC BMP Coverage Report 2011

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.4 Retail Consrvation Pricing

On Track

48 City of Burbank, PSD

Implementation (Water Rate Structure)

Customer Class	Water Rate Type	Conserving Rate?	(V) Total Revenue Comodity Charges	(M) Total Revenue Fixed Carges
Single-Family	Increasing Block	Yes	9438421.9	2223129.54
Multi-Family	Uniform	Yes	4275806.29	408654.14
Commercial	Uniform	Yes	3428362.72	377785.31
Industrial	Uniform	Yes	707879.42	17773.94
Institutional	Uniform	Yes	543536.81	26576.46
			18394007.14	**3053919.39**

Calculate: V / (V + M) **86 %**

Implementation Option: Use Annual Revenue As Reported

☐ Use 3 years average instead of most recent year

Canadian Water and Wastewater Association

Upload file:

Agency Provide Sewer Service: No

At Least As Effective As No

Exemption No

Comments:

CUWCC BMP Coverage Report 2012

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.4 Retail Consrvation Pricing

On Track

48 City of Burbank, PSD

Implementation (Water Rate Structure)

Customer Class	Water Rate Type	Conserving Rate?	(V) Total Revenue Comodity Charges	(M) Total Revenue Fixed Carges
Single-Family	Increasing Block	Yes	10629435.99	2386162.64
Multi-Family	Uniform	Yes	3983141.17	442265.8
Commercial	Uniform	Yes	2993751.55	399428.31
Industrial	Uniform	Yes	583467.47	18381.51
Institutional	Uniform	Yes	348528.31	29334.12
			18538324.49	**3275572.38**

Calculate: V / (V + M) **85 %**

Implementation Option: Use Annual Revenue As Reported

☐ Use 3 years average instead of most recent year

Canadian Water and Wastewater Association

Upload file:

Agency Provide Sewer Service: No

At Least As Effective As No

Exemption No

Comments:

CUWCC BMP Coverage Report 2011

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach

On Track

48 **City of Burbank, PSD** **Retail Only**

Does your agency perform Public Outreach programs? Yes

The list of wholesale agencies performing public outreach which can be counted to help the agency comply with the BMP

The name of agency, contact name and email address if not CUWCC Group 1 members

Did at least one contact take place during each quater of the reporting year? Yes

Public Outreach Program List	Number
Newsletter articles on conservation	4
Flyers and/or brochures (total copies), bill stuffers, messages printed on bill, information packets	12
Website	6
Landscape water conservation media campaigns	4
General water conservation information	12
Total	**38**

Did at least one contact take place during each quater of the reporting year? Yes

Number Media Contacts	Number
Articles or stories resulting from outreach	2
News releases	5
Total	**7**

Did at least one website update take place during each quater of the reporting year? Yes

Public Information Program Annual Budget

Annual Budget Category	Annual Budget Amount
	400000
Total Amount:	**400000**

Description of all other Public Outreach programs

Comments:

CUWCC BMP Coverage Report 2011

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach

On Track

At Least As Effective As Exemption	No

CUWCC BMP Coverage Report 2012

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach

On Track

48 **City of Burbank, PSD** **Retail Only**

Does your agency perform Public Outreach programs? Yes

The list of wholesale agencies performing public outreach which can be counted to help the agency comply with the BMP

The name of agency, contact name and email address if not CUWCC Group 1 members

Did at least one contact take place during each quater of the reporting year? Yes

Public Outreach Program List	Number
Newsletter articles on conservation	4
Flyers and/or brochures (total copies), bill stuffers, messages printed on bill, information packets	12
Website	6
Landscape water conservation media campaigns	4
General water conservation information	12
Total	**38**

Did at least one contact take place during each quater of the reporting year? Yes

Number Media Contacts	Number
Articles or stories resulting from outreach	3
News releases	1
Total	**4**

Did at least one website update take place during each quater of the reporting year? Yes

Public Information Program Annual Budget

Annual Budget Category	Annual Budget Amount
	400000
Total Amount:	**400000**

Description of all other Public Outreach programs

Comments:

CUWCC BMP Coverage Report 2012

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach

On Track

At Least As Effective As Exemption	No

CUWCC BMP Coverage Report 2011

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.2 School Education Programs — On Track

48 City of Burbank, PSD — **Retail Only**

Does your agency implement School Education programs? Yes

The list of wholesale agencies performing public outreach which can be counted to help the agency comply with the BMP

Metropolitan Water District of SC

Materials meet state education framework requirements? Yes

The Living Wise kit, developed by Resource Action Programs, satisfies with numerous State Curriculum Standards and helps teachers meet their teaching requirements. Each year, the program materials are updated to reflect the latest standards.

Materials distributed to K-6? Yes

Each kit includes a low flow showerhead, low flow kitchen aerator, toilet leak detector tablets, flow rate test bag, a compact fluorescent lamp, and other energy-saving and educational materials.

Materials distributed to 7-12 students? No (Info Only)

No materials are provided directly to 7-12 students, but these students have access to the kits if they have a younger sibling. In addition, these students can access our other educational materials, including our quarterly newsletter, Currents.

Annual budget for school education program: 55000.00

Description of all other water supplier education programs

The Living Wise kit, developed by Resource Action Programs, satisfies with numerous State Curriculum Standards and helps teachers meet their teaching requirements. Each year, the program materials are updated to reflect the latest standards. Each kit includes a low flow showerhead, low flow kitchen aerator, toilet leak detector tablets, flow rate test bag, a compact fluorescent lamp, and other energy-saving and educational materials. BWP provides quarterly tours of our EcoCampus to students and adults, where we showcase our native and drought tolerant plants, and stormwater capture systems. BWP also provides staffing for children's booths at our annual and other City events.

Comments:

At Least As Effective As No

Exemption No

CUWCC BMP Coverage Report 2012

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.2 School Education Programs — On Track

48 City of Burbank, PSD — **Retail Only**

Does your agency implement School Education programs? Yes

The list of wholesale agencies performing public outreach which can be counted to help the agency comply with the BMP

Metropolitan Water District of SC

Materials meet state education framework requirements? Yes

The Living Wise kit, developed by Resource Action Programs, satisfies with numerous State Curriculum Standards and helps teachers meet their teaching requirements. Each year, the program materials are updated to reflect the latest standards.

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Annual budget for school education program: 55000.00

Description of all other water supplier education programs

The Living Wise kit, developed by Resource Action Programs, satisfies with numerous State Curriculum Standards and helps teachers meet their teaching requirements. Each year, the program materials are updated to reflect the latest standards. Each kit includes a low flow showerhead, low flow kitchen aerator, toilet leak detector tablets, flow rate test bag, a compact fluorescent lamp, and other energy-saving and educational materials. BWP provides quarterly tours of our EcoCampus to students and adults, where we showcase our native and drought tolerant plants, and stormwater capture systems. BWP also provides staffing for children's booths at our annual and other City events.

Comments:

At Least As Effective As No

Exemption No

Appendix F

AWWA Water Audit Form

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

? Click to access definition
+ Click to add a comment

Water Audit Report for: City of Burbank/Burbank Water and Power (1910179)
Reporting Year: 2015 (1/2015 - 12/2015)

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

Master Meter and Supply Error Adjustments

WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ---------->

					Pcnt:	Value:	
Volume from own sources:	7	10,276.000	acre-ft/yr				acre-ft/yr
Water imported:	7	4,766.000	acre-ft/yr				acre-ft/yr
Water exported:		0.000	acre-ft/yr				acre-ft/yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: 15,042.000 acre-ft/yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:	
Billed metered:	7	14,507.000	acre-ft/yr			
Billed unmetered:			acre-ft/yr			
Unbilled metered:			acre-ft/yr			
Unbilled unmetered:		188.025	acre-ft/yr	1.25%		acre-ft/yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

Use buttons to select percentage of water supplied OR value

AUTHORIZED CONSUMPTION: 14,695.025 acre-ft/yr

WATER LOSSES (Water Supplied - Authorized Consumption)

346.975 acre-ft/yr

Apparent Losses

				Pcnt:	Value:	
Unauthorized consumption:		37.605	acre-ft/yr	0.25%		acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	8	70.480	acre-ft/yr		70.480	acre-ft/yr
Systematic data handling errors:	8	37.605	acre-ft/yr	0.25%	37.605	acre-ft/yr

Apparent Losses: 145.690 acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 201.285 acre-ft/yr

WATER LOSSES: 346.975 acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: 535.000 acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	8	279.0	miles
Number of active AND inactive service connections:	8	26,661	
Service connection density:		96	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure: 8 80.0 psi

COST DATA

Total annual cost of operating water system:	10	$16,443,000	$/Year	
Customer retail unit cost (applied to Apparent Losses):	9	$3.09	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	9		$/acre-ft	☑ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 77 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Billed metered
3: Water imported